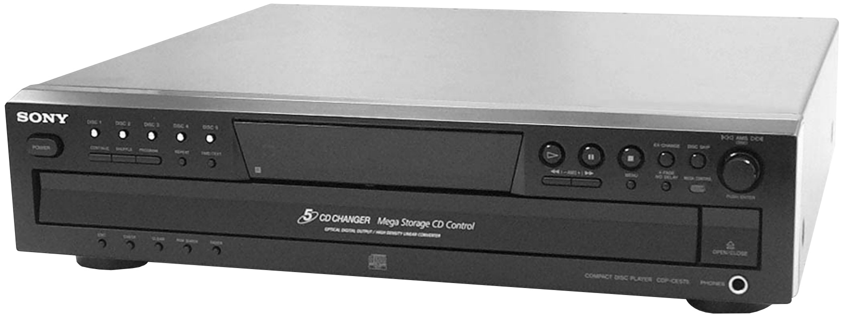
CDP-CE575

SERVICE MANUAL

Ver 1.1 2001.07

US Model
Canadian Model
AEP Model



Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM59-5BD27
Base Unit Name	BU-5BD27
Optical Pick-up Name	PXR-104X

SPECIFICATIONS

Compact disc player

Laser	Semiconductor laser (λ = 780 nm) Emission duration: continuous
Frequency response	2 Hz to 20 kHz ± 0.5 dB
Dynamic range	More than 93 dB
Harmonic distortion	Less than 0.0045%

Outputs

	Jack type	Maximum output level	Load impedance
ANALOG OUT	Phono jacks	2 V (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	–18 dBm	Wave length: 660 nm
PHONES	Stereo phone jack	10 mW	32 ohms

General

Power requirements	120 V AC, 60 Hz
Power consumption	11 W
Dimensions (approx.) (w/h/d)	430 x 110 x 400 mm (17 x 4 3/8 x 15 3/4 in.) incl. projecting parts
Mass (approx.)	5.2 kg (11 lbs 8 oz)

Supplied accessories

Audio cord (2 phono plugs – 2 phono plugs) (1)
Remote commander (remote) (1)
R6 (size AA) batteries (2)

Design and specifications are subject to change without notice.

COMPACT DISC PLAYER

9-929-586-12
2001G0500-1

Sony Corporation
Home Audio Company
Shinagawa Tec Service Manual Production Group

SONY®

TABLE OF CONTENTS

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.).
Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

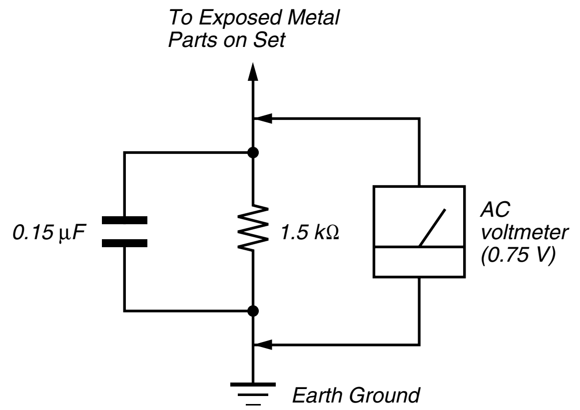


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveforms is output three times.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

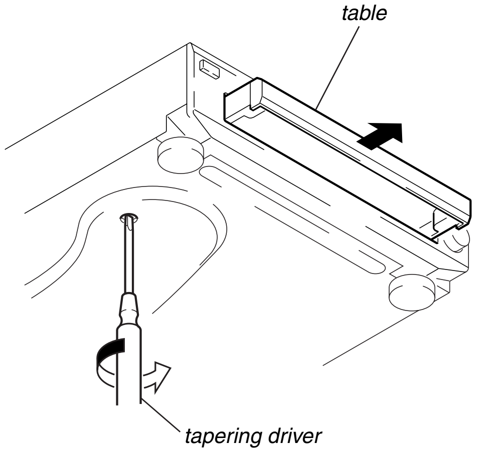
- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

NOTES ON CLEANING OF OPTICAL PICK-UP LENS

Do not clean up the optical pick-up lens.

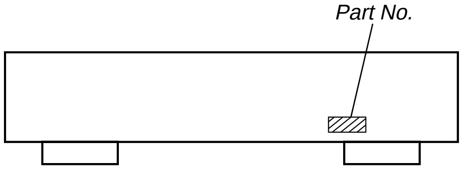
HOW TO OPEN THE DISC TABLE WHEN POWER SWITCH TURNS OFF

Insert a tapering driver into the aperture of the unit bottom, and turn it in the direction of the arrow (to OUT direction).



* *To close the disc table, turn the tapering driver in the reverse direction (to IN direction).*

MODEL IDENTIFICATION
– BACK PANEL –



Model	Part No.
US model	4-233-720-0□
Canadian model	4-233-720-1□
AEP model	4-233-720-2□

SHIPMENT MODE

Performed when returning the unit to the customer.
Custom File Erases all custom files and initializes settings.

Procedure:
1. Remove the discs from all trays.
2. While pressing the [DISK SKIP] button and [PROGRAM] button, press the [POWER] button to turn ON the power.
3. "NO DISC" is displayed, indicating that the mode has ended.

Note: "NO DISC" may be displayed even if there are discs on the trays.

CD-TEXT TEST DISC

This unit is able to display the TEXT data (character information) written in the CD on its fluorescent indicator tube.
The CD-TEXT TEST DISC (TGCS-313:4-989-366-01) is used for checking the display.
To check, perform the following procedure.

Checking Method:
1. Set the test disc on a free tray, and chuck the disc.
2. Press the [▷] button and playback the disc.
3. The following will be displayed on the fluorescent indicator tube.
   Display : 1kHz/0 dB/ L&R
4. Turn the [|◁◁ AMS ▷▷|] knob to switch the track. The text data of each track will be displayed.
   For details of the displayed contents for each track, refer to "Table 1 : CD-TEXT TEST DISC TEXT Data Contents" and "Table 2 : CD-TEXT TEST DISC Recorded Contents and Display".

Restrictions in CD-TEXT Display
In this unit, some special characters will not be displayed properly. These will be displayed as a space or a character resembling it. For details, refer to "Table 2 : CD-TEXT DISC Recorded Contents and Display".

Table 1 : CD-TEXT TEST DISC TEXT Data Contents (TRACKS No. 1 to 41:Normal Characters)

TRACK No.	Displayed Contents	TRACK No.	Displayed Contents
1	1kHz/0dB/L&R	22	1kHz/-90dB/L&R
2	20Hz/0dB/L&R	23	Infinity Zero w/o emphasis//L&R
3	40Hz/0dB/L&R	24	Infinity Zero with emphasis//L&R
4	100Hz/0dB/L&R	25	400Hz+7kHz(4:1)/0dB/L&R
5	200Hz/0dB/L&R	26	400Hz+7kHz(4:1)/-10dB/L&R
6	500Hz/0dB/L&R	27	19kHz+20kHz(1:1)/0dB/L&R
7	1kHz/0dB/L&R	28	19kHz+20kHz(1:1)/-10dB/L&R
8	5kHz/0dB/L&R	29	100Hz/0dB/L*
9	7kHz/0dB/L&R	30	1kHz/0dB/L*
10	10kHz/0dB/L&R	31	10kHz/0dB/L*
11	16kHz/0dB/L&R	32	20kHz/0dB/L*
12	18kHz/0dB/L&R	33	100Hz/0dB/R*
13	20kHz/0dB/L&R	34	1kHz/0dB/R*
14	1kHz/0dB/L&R	35	10kHz/0dB/R*
15	1kHz/-1dB/L&R	36	20kHz/0dB/R*
16	1kHz/-3dB/L&R	37	100Hz Square Wave//L&R
17	1kHz/-6dB/L&R	38	1kHz Square Wave//L&R
18	1kHz/-10dB/L&R	39	1kHz w/emphasis/-0.37dB/L&R
19	1kHz/-20dB/L&R	40	5kHz w/emphasis/-4.53dB/L&R
20	1kHz/-60dB/L&R	41	16kHz w/emphasis/-9.04dB/L&R
21	1kHz/-80dB/L&R		

Note : The contents of Track No. 1 to 41 are the same as those of the current TEST DISC-their titles are displayed.

Table 2: CD-TEXT TEST DISC Recorded Contents and Display
(In this unit, some special characters cannot be displayed. This is no a fault.)

TRACK No.	Recorded contents	Display
42	! " # $ % & ´ (21h to 27h)1kHz 0dB L&R	← All the same
43	( ) * + , – . / (28h to 2Fh)	← All the same
44	0 1 2 3 4 5 6 7 (30h to 37h)	← All the same
45	8 9 : ; < = > ? (38h to 3Fh)	← All the same
46	@ A B C D E F G (40h to 47h)	← All the same
47	H I J K L M N O (48h to 4Fh)	← All the same
48	P Q R S T U V W (50h to 57h)	← All the same
49	X Y Z [¥] ^ _ (58h to 5Fh)	X Y Z [\ ] ^ _ (58····
50	` a b c d e f g (60h to 57h)	← All the same
51	h i j k l m n o (68h to 6Fh)	← All the same
52	p q r s t u v w (70h to 77h)	← All the same
53	x y z { l } ~ █ (78h to 7Fh)	← All the same
54	▀ i ¢ £ ¤ ¥ ¦ § (A0h to A7h) 8859-1	█ █ (A0···· ▀i ¢ £ ¤ ¥ ¦ are not displayed
55	♪ © ª « ¬ ℗ ® ¯ (A8h to AFh)	ｨ ｩ ｪ ｫ ｬ ｭ ｮ ｯ (A8····
56	· ± ² ³ ´ µ ¶ • (B0h to B7h)	ｰ ｱ ｲ ｳ ｴ ｵ ｶ ｷ (B0····
57	† ¹ º » ¼ ½ ¾ ¿ (B8h to BFh)	ｸ ｹ ｺ ｻ ｼ ｽ ｾ ｿ (B8····
58	À Á Â Ã Ä Å Æ Ç (C0h to C7h)	ﾀ ﾁ ﾂ ﾃ ﾄ ﾅ ﾆ ﾇ (C0····
59	È É Ê Ë Ì Í Î Ï (C8h to CFh)	ﾈ ﾉ ﾊ ﾋ ﾌ ﾍ ﾎ ﾏ (C8····
60	Đ Ñ Ò Ó Ô Õ Ö × (D0h to C7h)	ﾐ ﾑ ﾒ ﾓ ﾔ ﾕ ﾖ ﾗ (D0····
61	Ø Ù Ú Û Ü Ý Þ ß (D8h to DFh)	ﾘ ﾙ ﾚ ﾛ ﾜ ﾝ ﾞ ﾟ (D8····
62	à á â ã ä å æ ç (E0h to E7h)	(E0···· à á â ã ä å æ ç are not displayed
63	è é ê ë ì í î ï (E8h to FFh)	(E8···· è é ê ë ì í î ï are not displayed
64	∂ ñ ò ó ô õ ö ÷ (F0h to F7h)	(F0···· ∂ ñ ò ó ô õ ö ÷ are not displayed
65	ø ù ú û ü ý þ ÿ (F8h to FFh)	(F8···· ø ù ú û ü y þ ÿ are not displayed
66	No.66	← All the same
67	No.67	← All the same
to	to	to
99	No.99	← All the same

SECTION 2
GENERAL

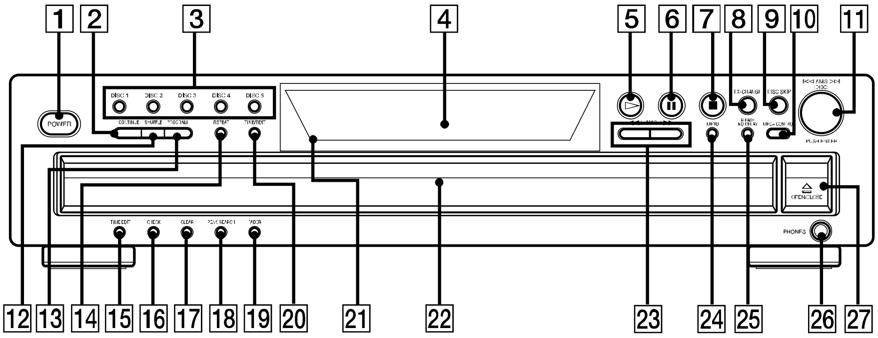
This section is extracted from instruction manual.

Parts Identification

Front Panel

The items are arranged in alphabetical order.

Refer to the pages indicated in parentheses ( ) for details.

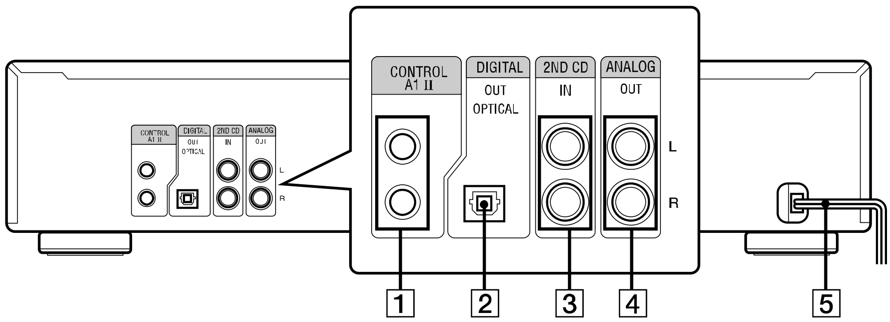


CHECK 16 (13)
CLEAR 17 (13, 14, 16, 17)
CONTINUE 2 (9, 13, 15, 18)
DISC 1–5 3 (9, 10, 13)
Disc compartment 22 (9)
DISC SKIP 9 (9, 12, 13)
Display 4 (11)
EX-CHANGE 8 (12, 15)
FADER 19 (14, 20)
MEGA CONTROL 10 (18, 19)
MENU 24 (8, 16, 17)
PEAK SEARCH 18 (15)
PHONES jack 26 (10)
POWER 1 (7, 9, 16)
PROGRAM 13 (9, 13, 18)
Remote sensor 21 (6)
REPEAT 14 (10, 18)
SHUFFLE 12 (9, 10, 18)
TIME EDIT 15 (14)
TIME/TEXT 20 (11)
X-FADE/NO DELAY 25 (19, 20)

BUTTON DESCRIPTIONS

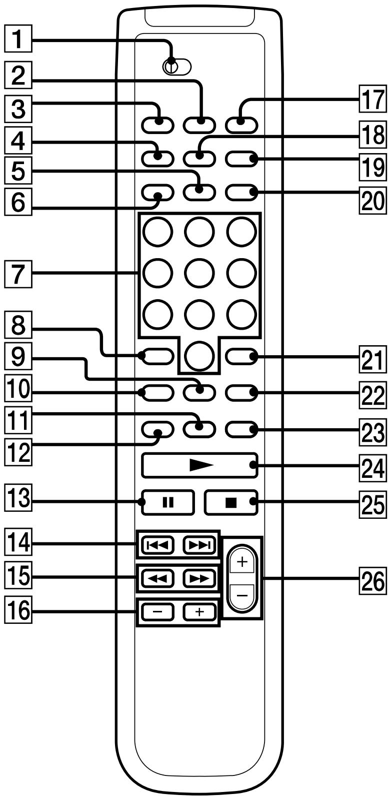
≙ OPEN/CLOSE 27 (7, 9, 10, 11)
▷ 5 (9, 13, 15, 18, 20, 22)
❚❚ 6 (10, 15, 18, 22)
■ 7 (10, 15, 18)
⏮AMS⏭ (DISC) dial 11 (10, 13, 15, 17, 18, 19)
◀◀/▶▶ (AMS+/–) 23 (10, 14, 17, 18)

Rear Panel



2ND CD IN jacks 3 (8)
ANALOG OUT L/R jacks 4 (6)
CONTROL A1II jacks 1 (6, 20)
DIGITAL OUT OPTICAL jack 2 (7)
Mains lead 5 (6)

Remote Control



ANALOG OUT LEVEL +/– 26 (6, 7, 10)
CD1/2/3 switch 1 (7)
CHECK 9 (13)
CLEAR 22 (13, 14, 16, 17)
CONTINUE 3 (9, 13, 15, 18)
DISC/CAPS 6 (10, 17)
DISC SKIP +/– 16 (9, 12, 13)
ENTER 21 (17)
FADER/DEL 20 (14, 20)
HIGH-LIGHT 23 (12)
MEGA CONTROL 4 (18, 19)
MUSIC SCAN 11 (10)
NAME INPUT 12 (17)
NO DELAY 19 (19, 20)
Number buttons 7 (10, 13, 17)
PROGRAM 17 (9, 13, 18)
REPEAT 10 (10, 18)
SHUFFLE 2 (9, 10, 18)
TIME/TEXT/SPACE 5 (11, 17)
X-FADE 18 (19, 20)

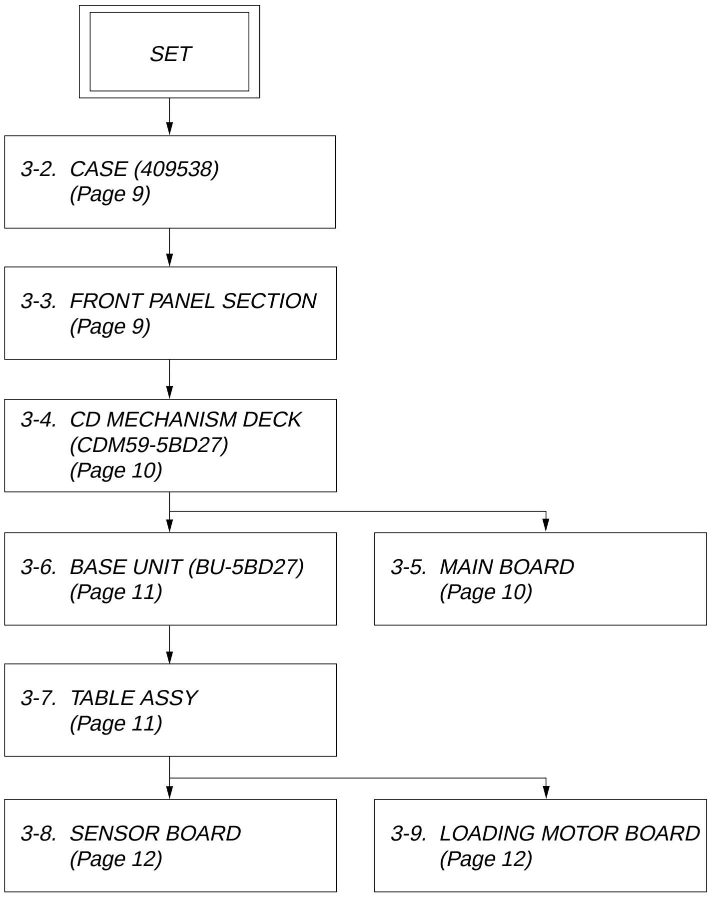
BUTTON DESCRIPTIONS

>10 8 (10, 13)
► 24 (9, 13, 15, 18, 20, 22)
❙❙ 13 (10, 15, 18, 22)
■ 25 (10, 15, 18)
◄◄/►►❙ 14 (10, 13, 15, 17, 18, 19)
◄◄/►► 15 (10, 14, 17, 18)

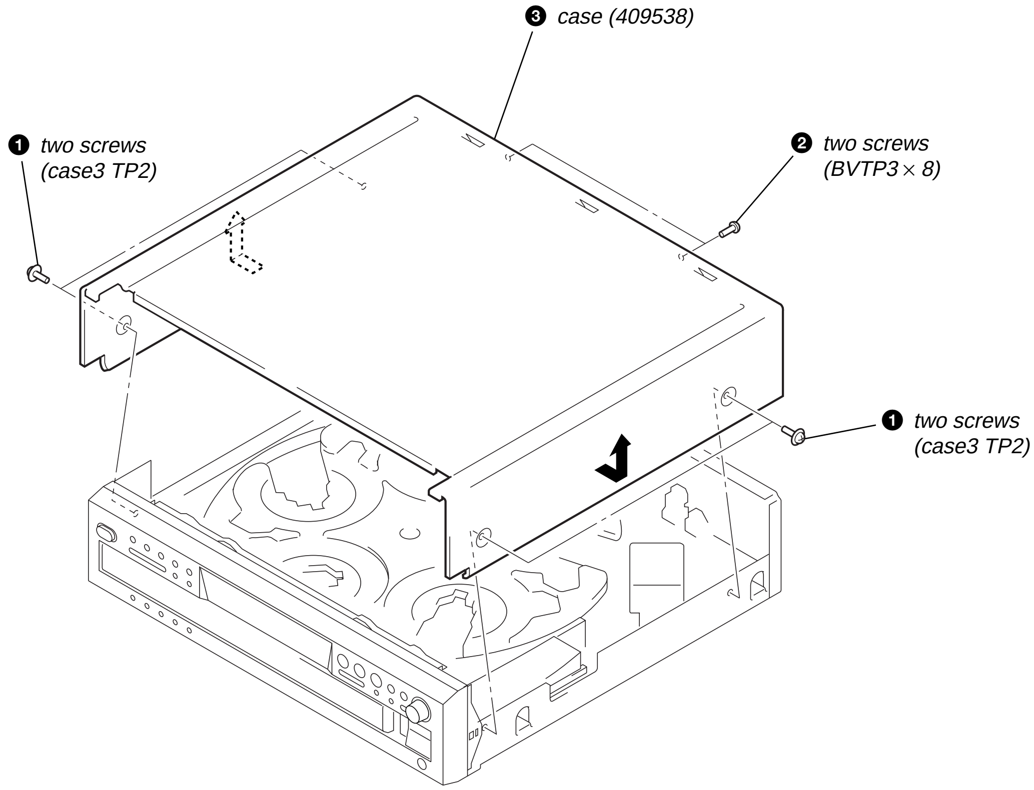
SECTION 3
DISASSEMBLY

• This set can be disassembled in the order shown below.

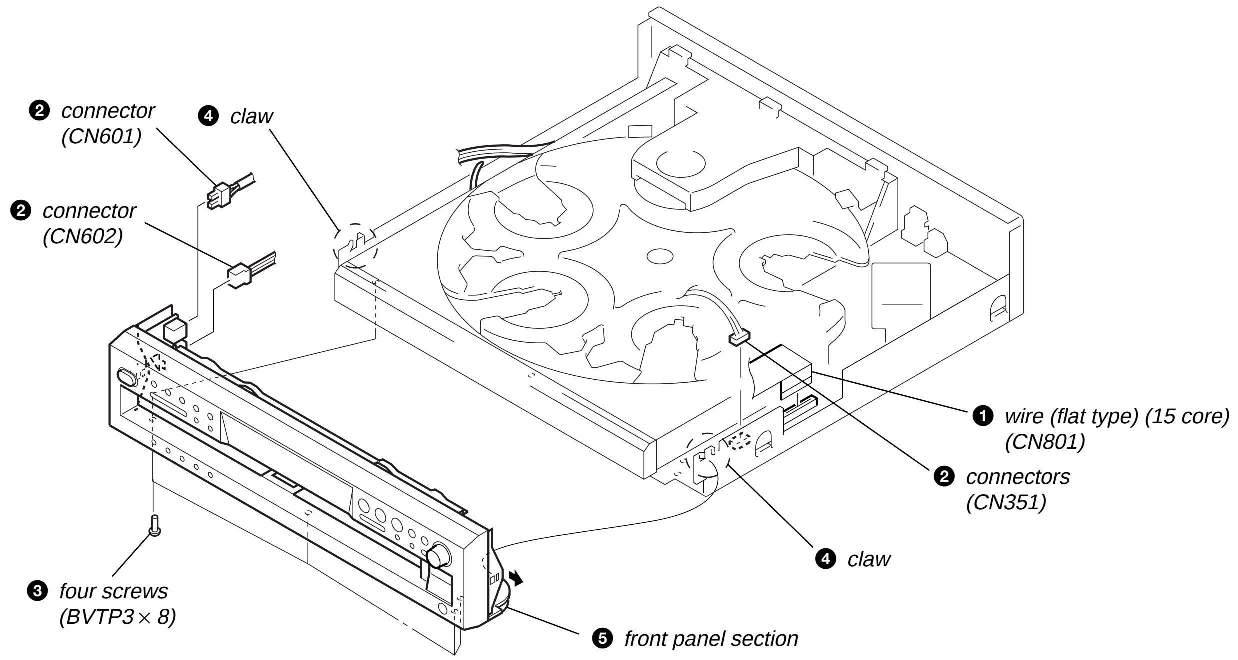
3-1. DISASSEMBLY FLOW



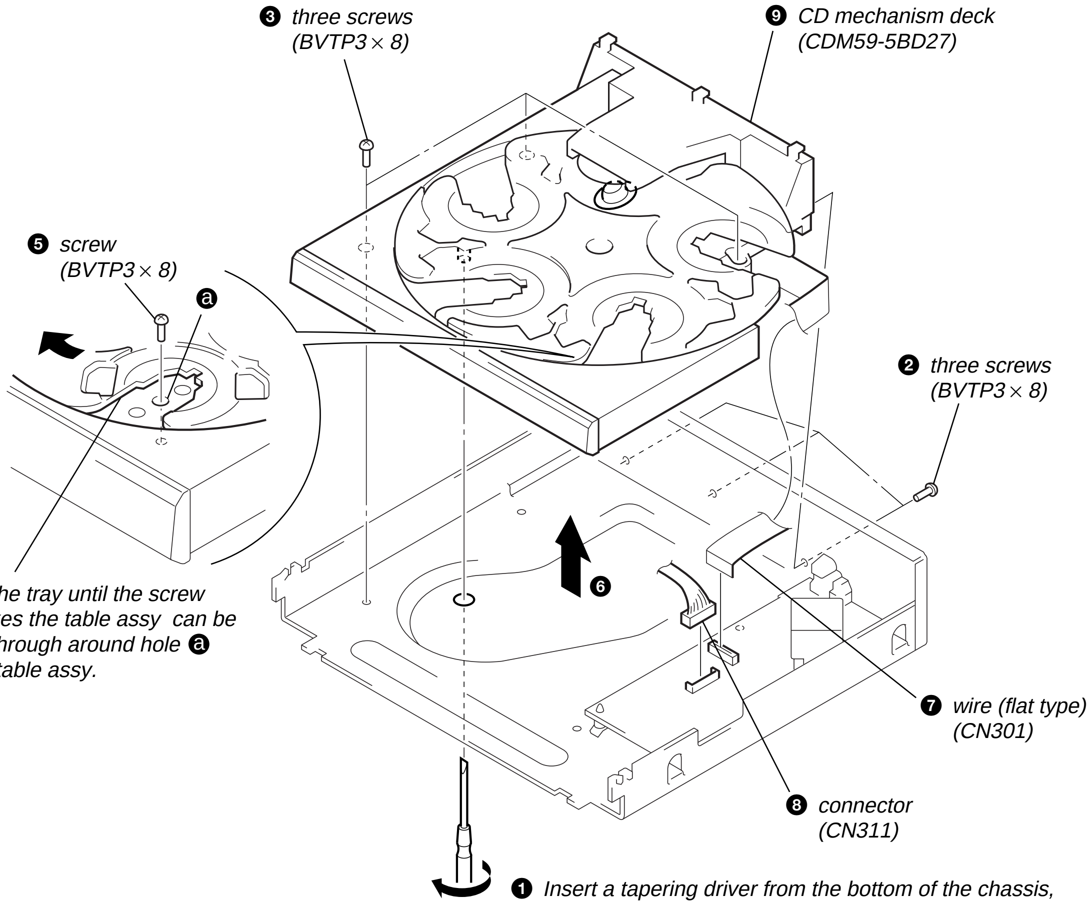
3-2. CASE (409538)



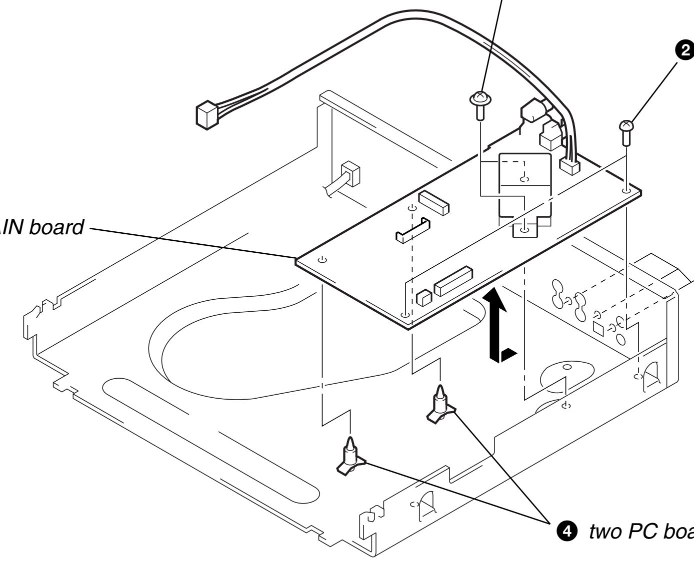
3-3. FRONT PANEL SECTION



3-4. CD MECHANISM DECK (CDM59-5BD27)

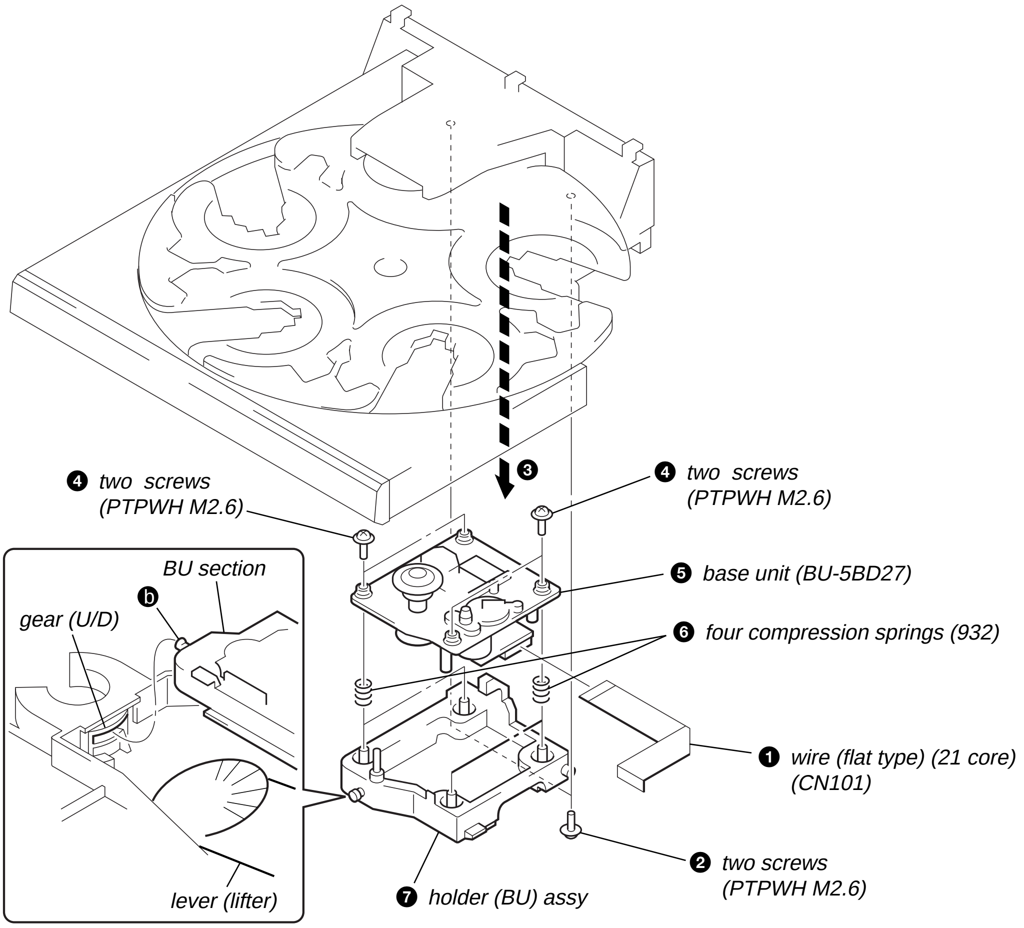


3-5. MAIN BOARD

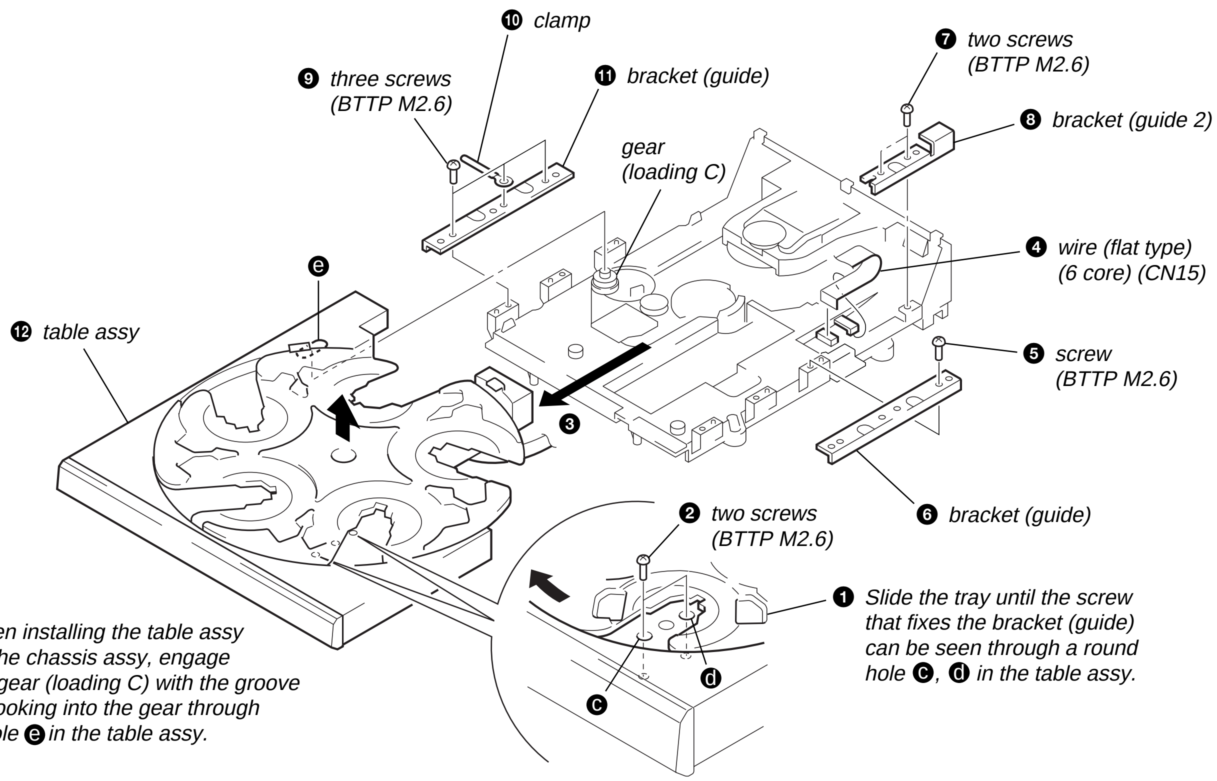


3-6. BASE UNIT (BU-5BD27)

Note: When installing the BU on the chassis, set the lever (lifter) in free position, the gear (U/D) in UP position, and insert the shaft ⓑ into the groove of gear (U/D).

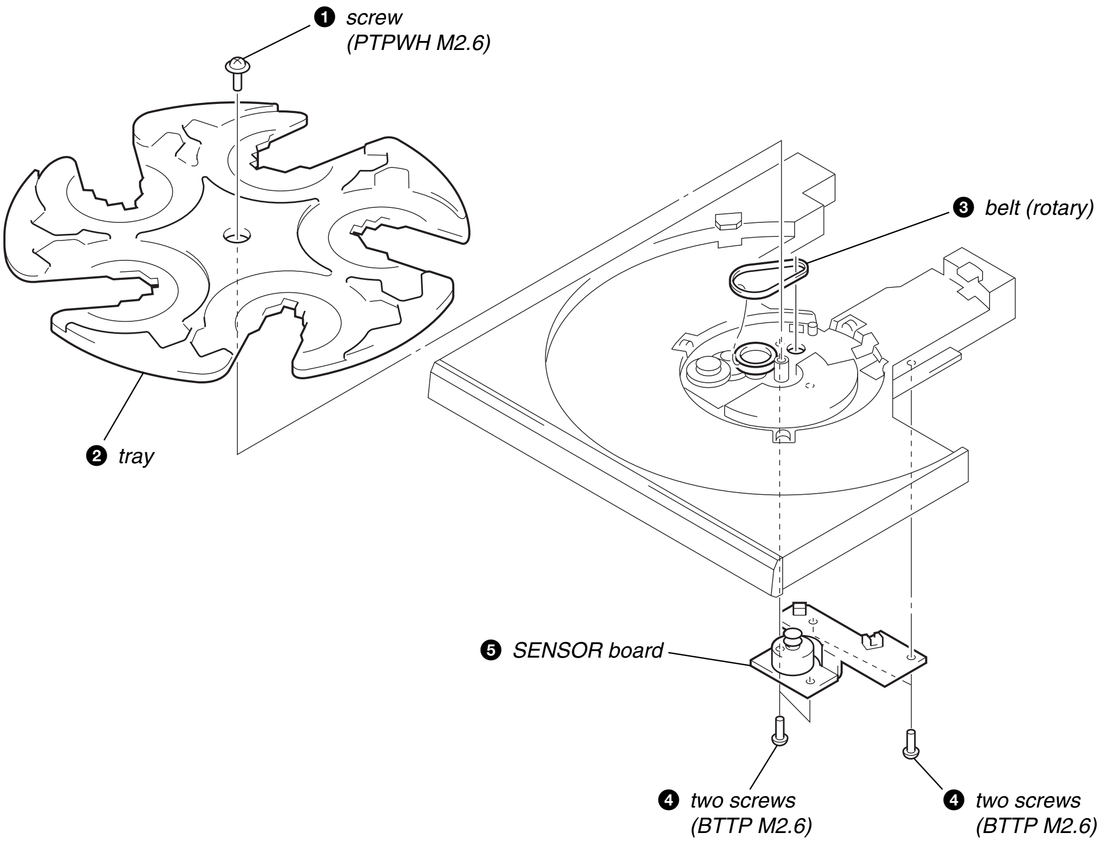


3-7. TABLE ASSY

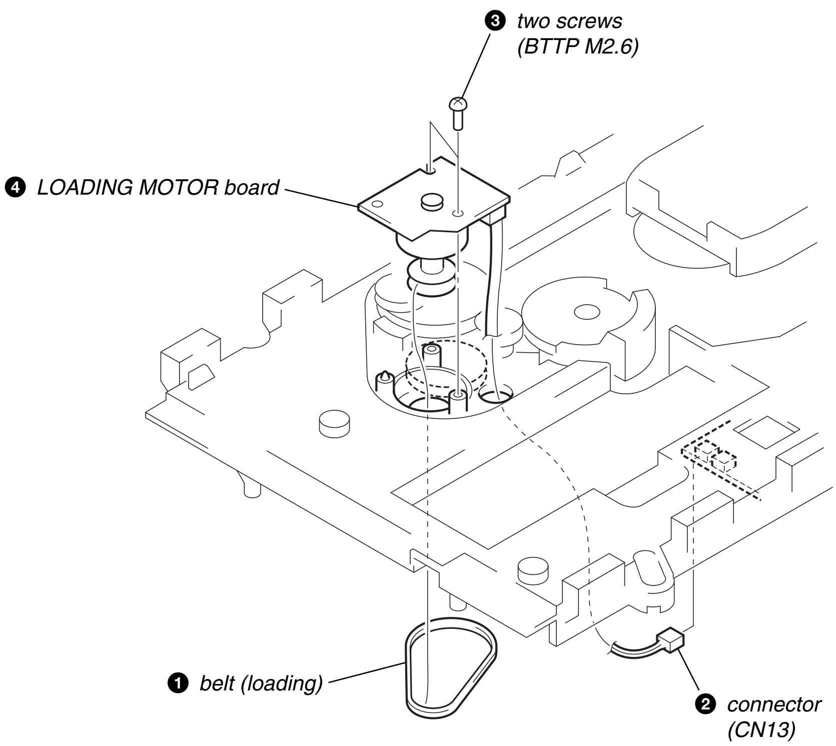


Note: When installing the table assy on the chassis assy, engage the gear (loading C) with the groove by looking into the gear through a hole ⓔ in the table assy.

3-8. SENSOR BOARD



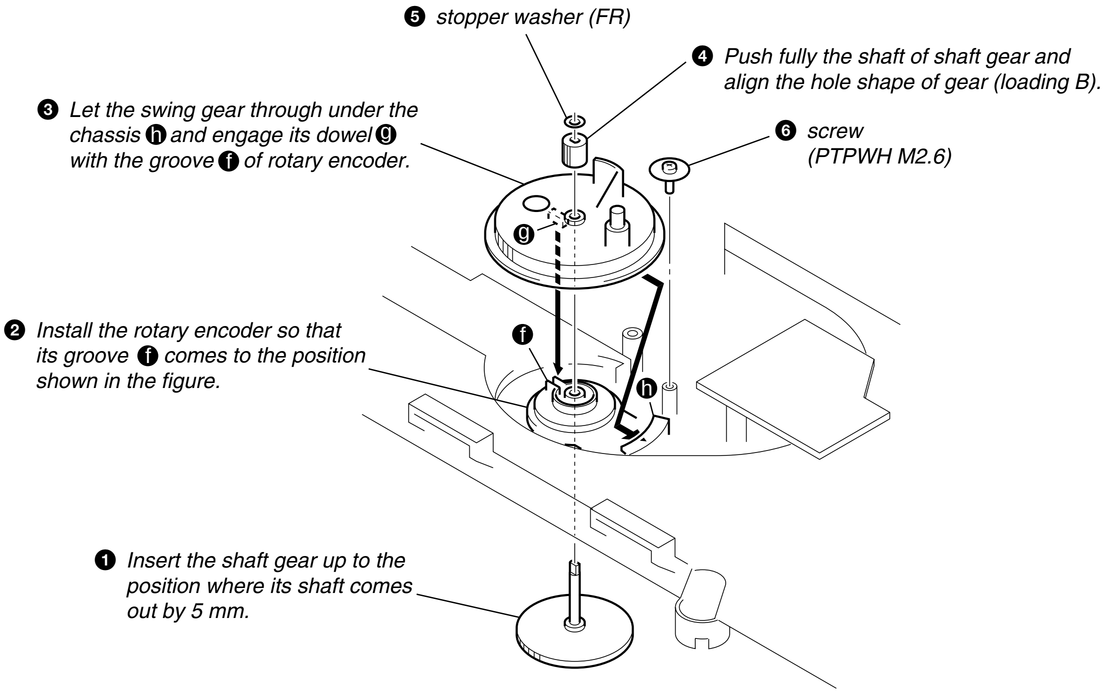
3-9. LOADING MOTOR BOARD

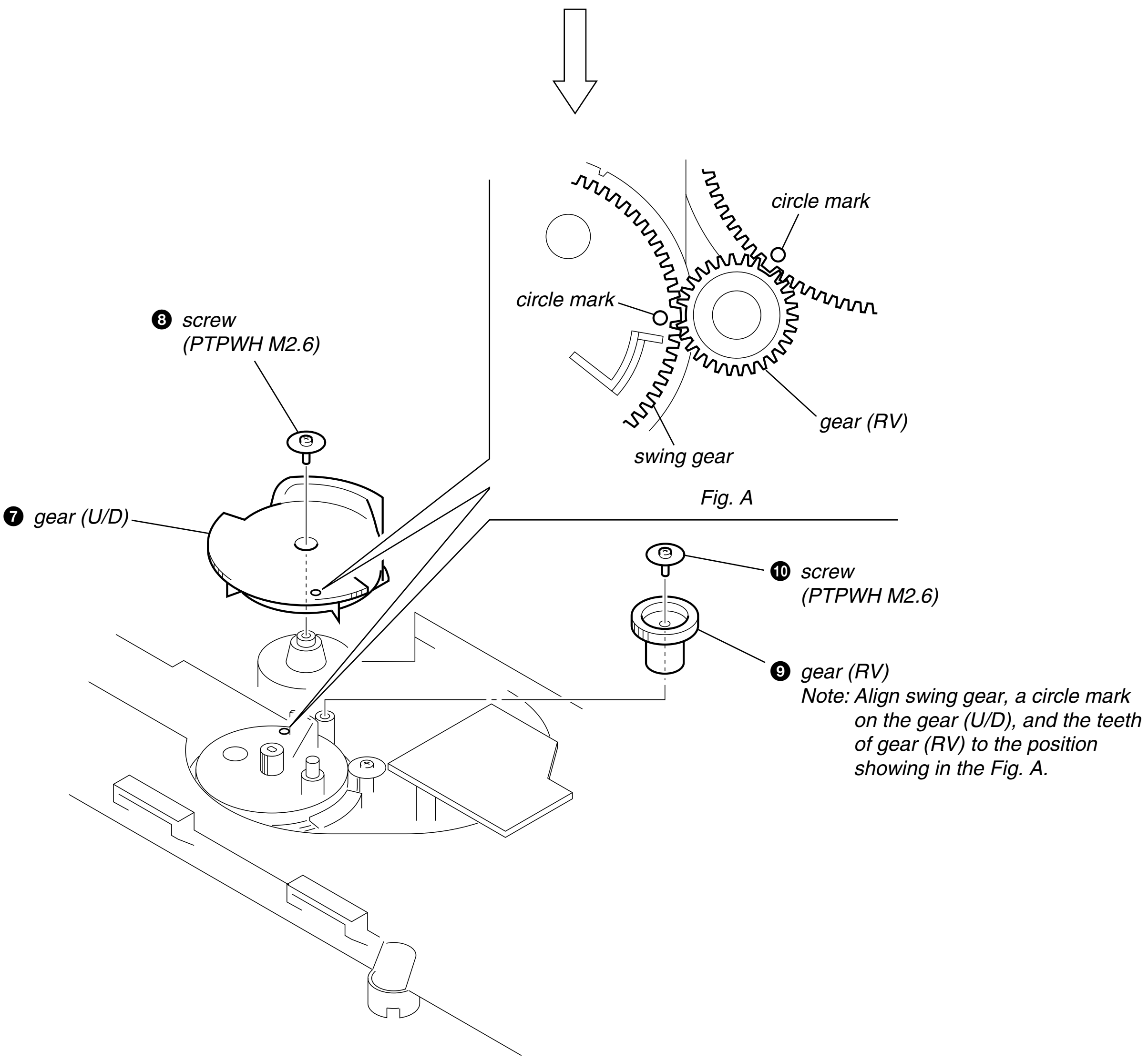


SECTION 4
ASSEMBLY

Note: Follow the assembly procedure in the numerical order given.

ADJUSTING PHASE OF SWING GEAR AND GEAR (U/D)





SECTION 5
TEST MODE

ADJ MODE

NOTE: This mode cannot be performed without a general remote commander.

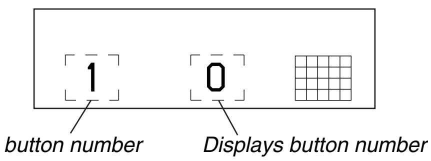
1. Chuck the CD first, and then turn OFF the power.
2. Short-circuit the test point TP (ADJ) of the MAIN board and ground with a lead wire.
3. Press the [POWER] button to turn ON the power.
   The CD is playback the 2nd track automatically and the ADJ mode is set.
4. To exit the mode, press the [POWER] button to turn OFF the power.

ADJ Mode Special Function Table

Button	Function
DISC 1	RFDC display
DISC 2	Decision of Disc size (8/12 cm)
DISC 3	Change the slice level
DISC 4	Change the focus bias (high/middle/low)
DISC 5	Track jump (1st ←→ 20th)
TIME/TEXT	TRK off/on
▶▶	Offset (VC), EF bias display
◀◀	Offset (RF, FE, TRK) display
EX-CHANGE	Focus bias down
DISK SKIP	Focus bias up
X-FADE	Track gain up/down
EDIT	Disc kind (aluminum/RW), side (8/12 cm) display
CHECK	S-curve mode
CLEAR	RFCK → GFS → error rate display
PEAK SERCH	Best point of focus bias, jitter value display
FADER	Auto gain display

FLUORESCENT INDICATOR TUBE, LED ALL LIT, AND KEY CHECK MODE

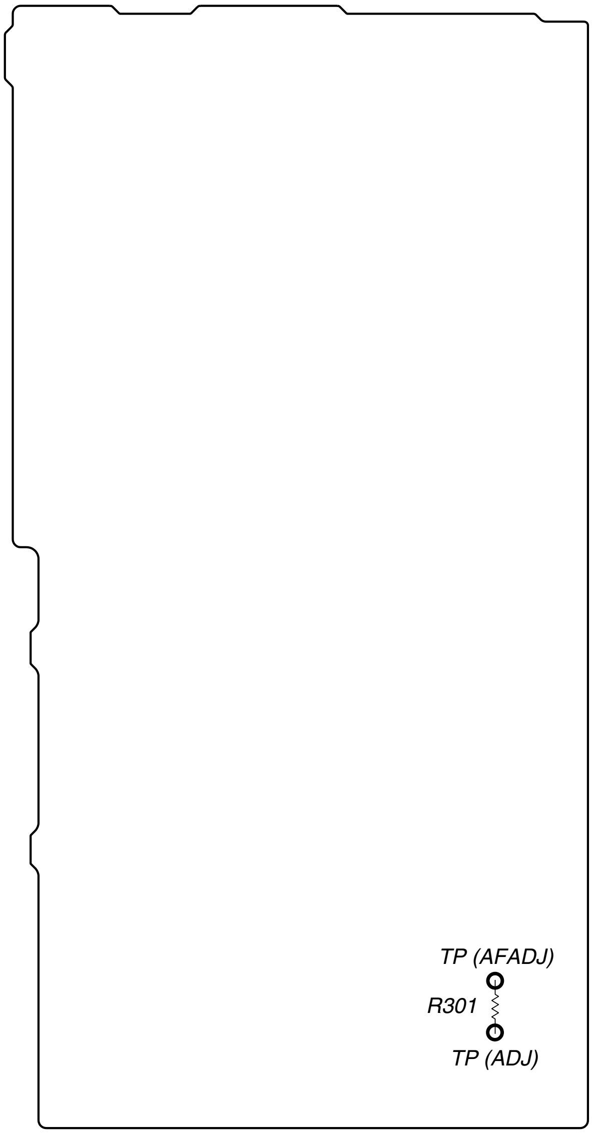
1. Short-circuit the test TP (AFADJ) of the MAIN board and ground with a lead wire.
2. Press the [POWER] button to turn ON the power.
   The whole fluorescent indicator tube lights up.
3. All buttons have individual button numbers.
   When a button is pressed, the button number is counted up and displayed.



   When remote controller signals are received, "RM ✱✱" will be displayed.
   (✱✱ are the numbers corresponding to the remote controller buttons)
   When using the remote controller, switch the [CD1/2/3] switch to CD1.
4. To exit the mode, press the [POWER] button to turn OFF the power.

Connecting Location:

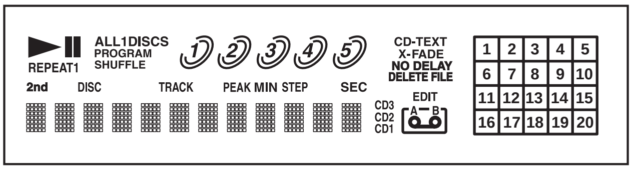
– MAIN BOARD (Component Side) –



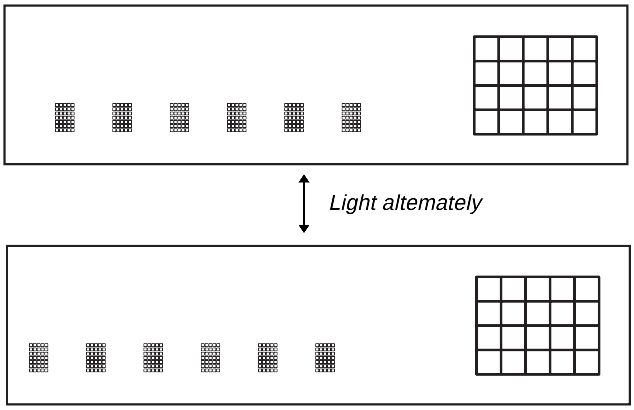
Buttons and Corresponding Button Numbers

Button	Button Number or Display
DISC1	12
DISC2	11
DISC3	10
DISC4	9
DISC5	8
CONTINUE	13
SHUFFLE	14
PROGRAM	15
REPEAT	22
TIME/TEXT	21
EDIT	4
CHECK	3
CLEAR	2
PEAK SEARCH	1
FADER	0
▷	Partial lighting 1 (grid check)
❚❚	25
■	Partial lighting 1 (segment check)
EX-CHANGE	27
DISC SKIP	28
▶▶	19
◀◀	20
MENU	18
X-FADE, NO DELAY	17
MEGA CONTROL	16
⏮◁ AMS ▷⏭ (push)	29
⏮◁ AMS ▷⏭ (rutn)	When rotated clockwise: The music calendar numerals light up in ascending order. When rotated counterclockwise: The music calendar numerals light up in descending order.
⏏ OPEN/CLOSE	All lit (LED lighting)

All lit

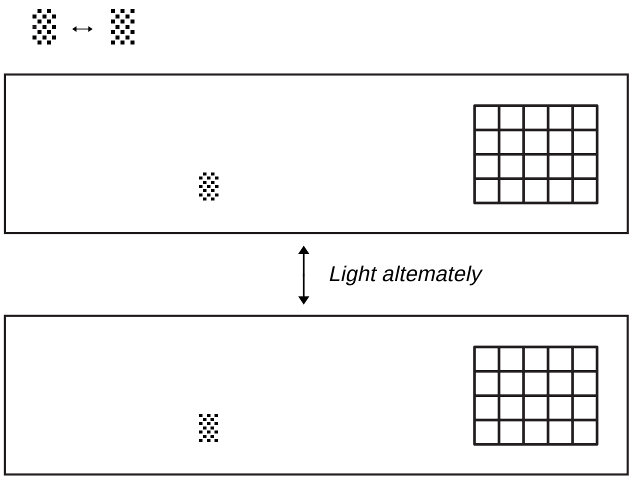


Partial lighting 1



Partial lighting 2

Light altemately



AGING MODE

For the aging mode, three modes of all mode, disc table mode, and loading mode are available.

Code No.	Status	All mode	Disc table mode	Loading mode
0	CLOSE (Tray close)	○	×	○
1	TOC read	○	○	○
2	Access to last track	○	×	×
3	Play of last track (2 sec)	○	×	×
4	EX OPEN (Tray open while chucking)	○	×	○
5	EX SKIP (Disc tray rotate)	○	×	×
6	EX CLOSE (Tray close)	○	×	○
7	Access to first track	○	×	×
8	Play of first track (2 sec)	○	×	×
9	OPEN (tray open)	○	×	○
A	DISC SKIP (Disc tray rotate, and change next disc)	○	○	×

The discs are selected in the order of DISC 1 → DISC 2 → DISC 3 → DISC 4 → DISC 5 → DISC 1....Empty trays are skipped.
But the order is random in the disc table mode.

This set has the Aging mode for operation check of the mechanism deck.

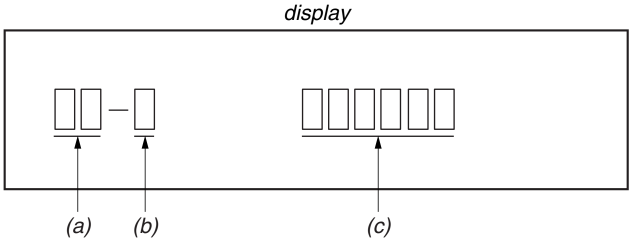
- If a failure occurred
  The aging operation stops and a faulty status is displayed on the fluorescent indicator tube.
- If no failure occurs
  The aging operation continues repeatedly.

Note: Do not use the test disc when performing aging.
Aging will not be performed properly if discs with tracks shorter than 4 seconds are used.

Procedure:

1. Press the POWER button and turn ON the power.
2. Set discs on all trays.
   (More than two discs if five are not available)
3. All mode:
   Press the CHECK, CONTINUE and ■ buttons at the same time.
   Disc table mode:
   Press the CHECK, CONTINUE and DISC SKIP buttons at the same time.
   Loading mode:
   Press the CHECK, CONTINUE and EX-CHANGE buttons at the same time.
4. Aging starts, and the fluorescent indicator tube will display as follows.

display



(a) A : All mode
AD : Disc table mode
AL : Loading mode
NG : failure occurred
(b) Code No.
(c) Aging count (000001 to 999999)

5. To exit the mode, press the POWER button to turn OFF the power.

MECHANISM DECK CHECK MODE

For the mechanism desk check mode, two modes of the disc table mode and the loading mode are available.
In the mechanism deck check mode, the disc table rotating time and the loading time in each section are measured and displayed.

Disc Table Mode

Procedure:

1. Press the [POWER] button while pressing three buttons of [▷] , [≜ OPEN/CLOSE], and [REPEAT] simultaneously.
2. Start the table mode, and turn to right then turn to left, and display rotating time as follows.

display

R5.7 L5.8

3. To release from this mode, press the [POWER] button to turn OFF the power.

Loading Mode

Procedure:

1. Press the [POWER] button while pressing three buttons of [▷] , [≜ OPEN/CLOSE], and [TIME/TEXT] simultaneously.
2. Start the loading mode and display as follows.

Operation	Display
Start	START – –. –
Open and close	CLOSE 1.9
BU up	BU UP 0.5
EX open	EX OPEN 1.9
EX close	EX CLOSE 2.2
BU down	BU DOWN 0.4
Open	OPEN 1.7

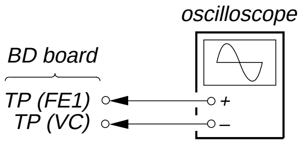
3. To change the display, turn the [|◁◁ AMS ▷▷|] knob.
4. To release from this mode, press the [POWER] button to turn OFF the power.

SECTION 6
ELECTRICAL ADJUSTMENTS

Note:
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use PATD-012 disc (4-225-203-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

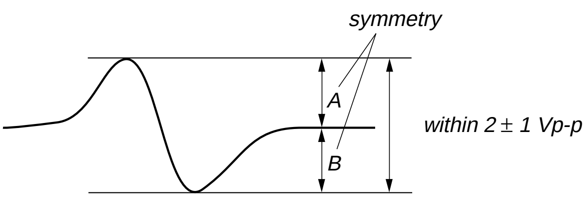
S Curve Check

Connection:



Procedure:
1. Set the test disc (PATD-012). Disc chucking operation is complete, then press the [POWER] button to turn the power off.
2. Connect an oscilloscope to test point TP (FE1) and TP (VC) on the BD board.
3. Connect between test point TP (ADJ) on the MAIN board and GND by lead wire.
4. Press the [POWER] button to turn the power on and enter the ADJ mode.
   Then playback the number two track automatically, press the [■] button to stop the playback.
5. Press the [CHECK] button actuate the focus search. (actuate the focus search when disc table is moving in and out)
6. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2 ± 1 Vp-p.

S-curve waveform

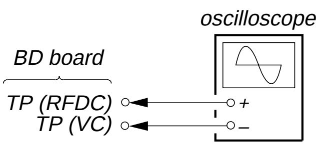


Note:
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

Checking Location: BD board

RFDC Level Check

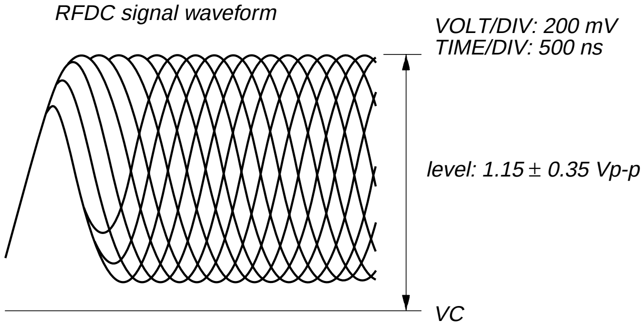
Connection:



Procedure:
1. Set the test disc (PATD-012). Disc chucking operation is complete, then press the [POWER] button to turn the power off.
2. Connect an oscilloscope to test point TP (RFDC) and TP (VC) on the BD board.
3. Connect between test point TP (ADJ) on the MAIN board and GND by lead wire.
4. Press the [POWER] button to turn the power on and enter the ADJ mode, then playback the number two track automatically.
5. Confirm that oscilloscope waveform is clear and check the level of between RFDC top and VC is correct or not.

Note: A clear RFDC signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

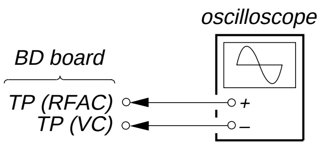
RFDC signal waveform



Checking Location: BD board

RFAC Level Check

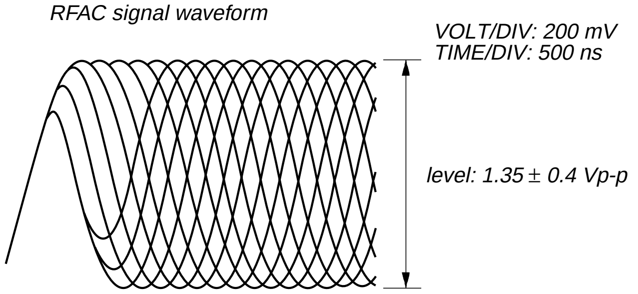
Connection:



Procedure:
1. Set the test disc (PATD-012). Disc chucking operation is complete, then press the [POWER] button to turn the power off.
2. Connect an oscilloscope to test point TP (RFAC) and TP (VC) on the BD board.
3. Connect between test point TP (ADJ) on the MAIN board and GND by lead wire.
4. Press the [POWER] button to turn the power on and enter the ADJ mode, then playback the number two track automatically.
5. Confirm that oscilloscope waveform is clear and check RFAC signal level is correct or not.

Note: A clear RFAC signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

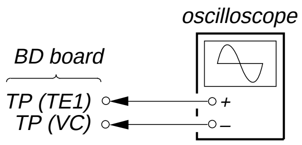
RFAC signal waveform



Checking Location: BD board

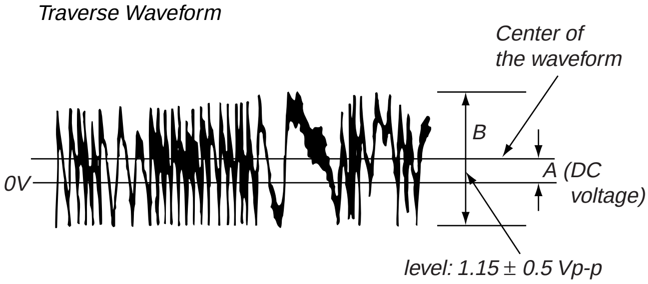
E-F Balance Check

Connection:

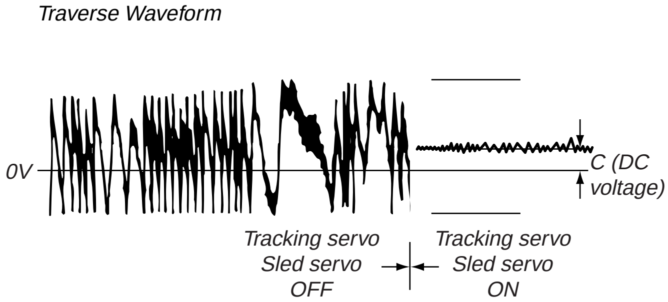


Procedure:

1. Set the test disc (PATD-012). Disc chucking operation is complete, then press the POWER button to turn the power off.
2. Connect an oscilloscpe to test point TP (TE1) and TP (VC) on the BD board.
3. Connect between test point TP (ADJ) on the MAIN board and GND by lead wire.
4. Press the POWER button to turn the power on and enter the ADJ mode, then playback the number two track automatically.
5. Press the TIME button. (The tracking servo and the sledding servo are turned OFF)
6. Check the level B of the oscilliscope waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%



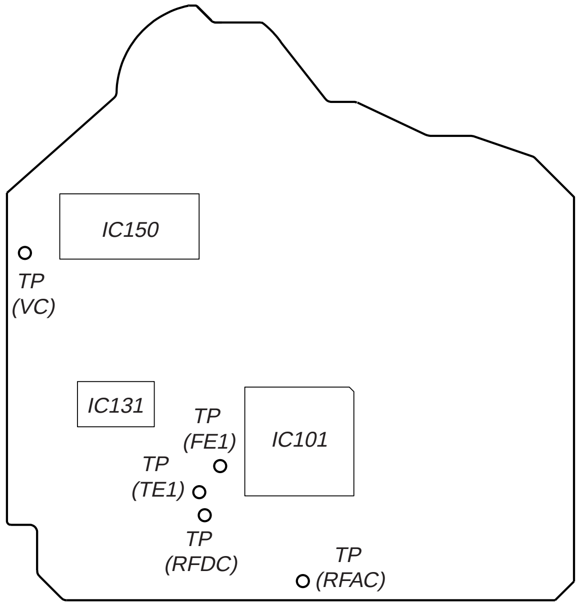
7. Press the TIME button. (The tracking servo and sledding servo are turned ON)
   Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 6.



Checking Location: BD board

Checking Location:

– BD BOARD (Conductor Side) –



MEMO

SECTION 7
DIAGRAMS

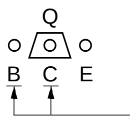
7-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ▬ : Pattern from the side which enables seeing.

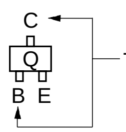
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor



These are omitted.



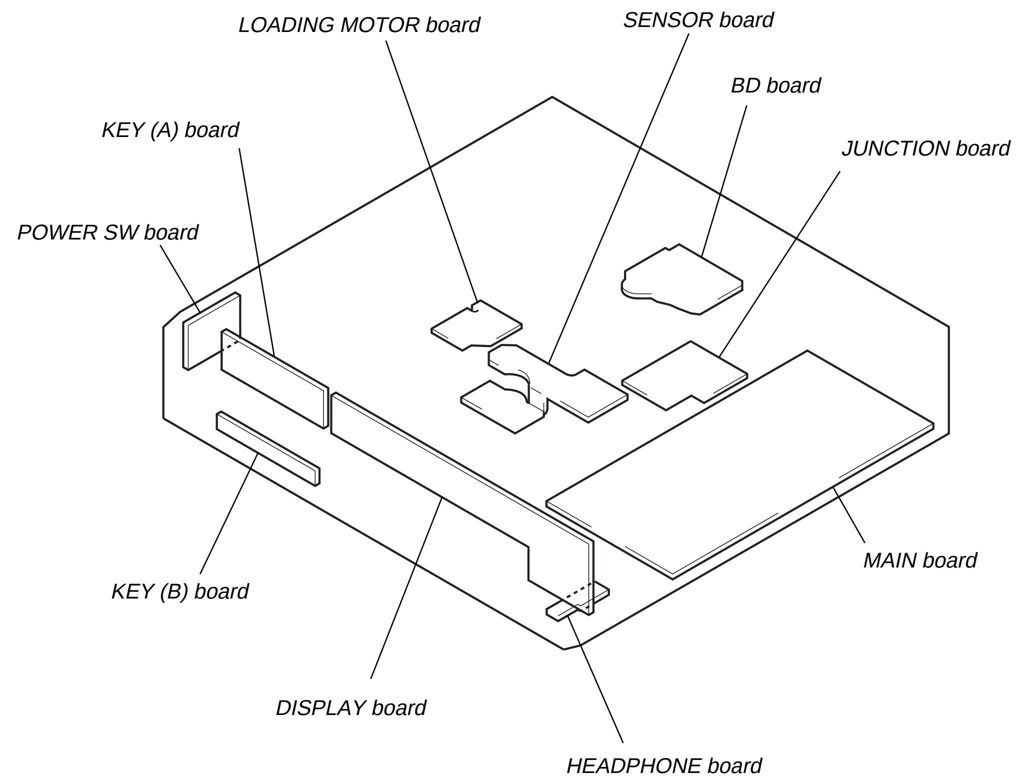
These are omitted.

Note on Schematic Diagram:
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

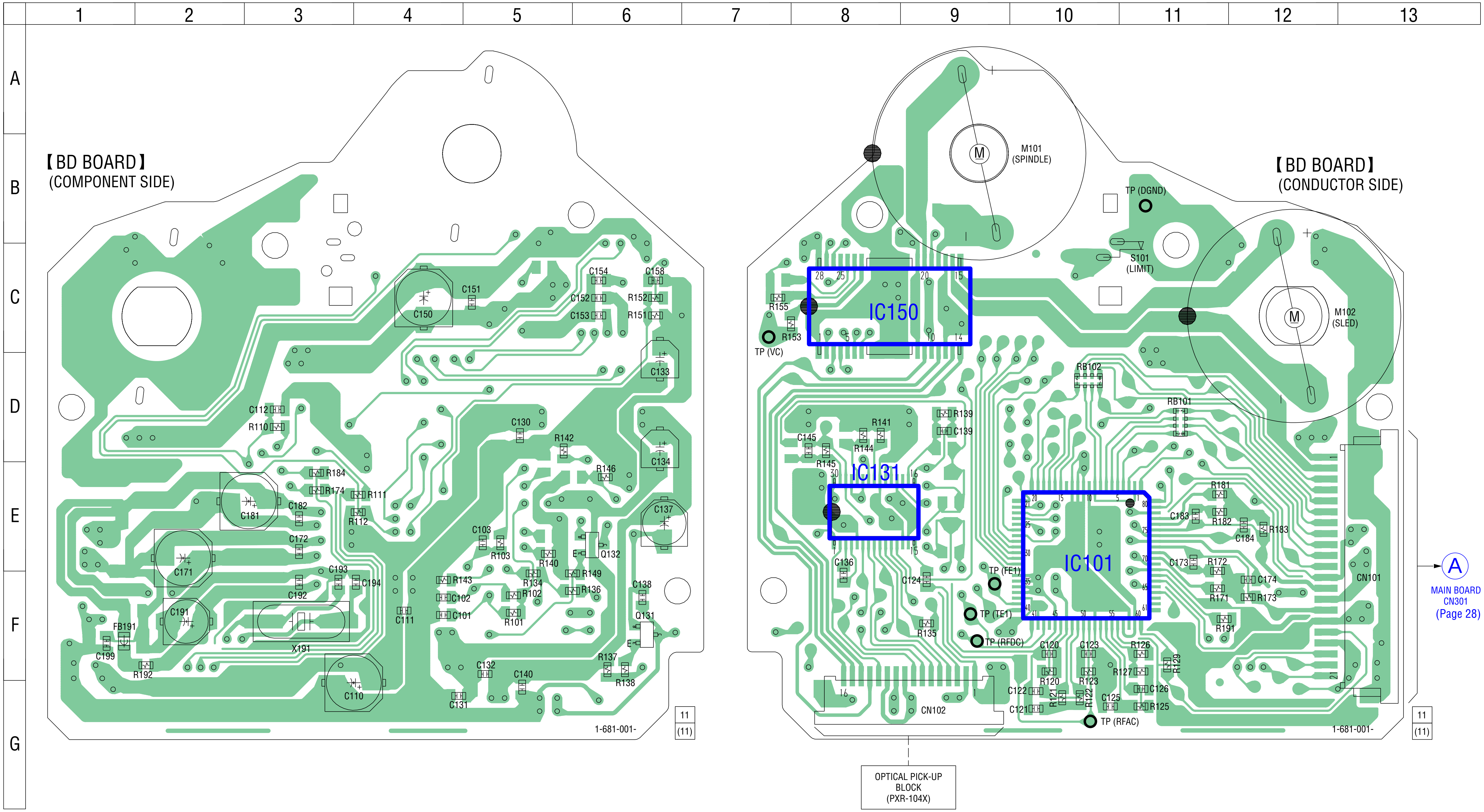
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨⇨ : DIGITAL OUT

- **Circuit Boards Location**



7-2. PRINTED WIRING BOARD – BD Section – • See page 21 for Circuit Boards Location.

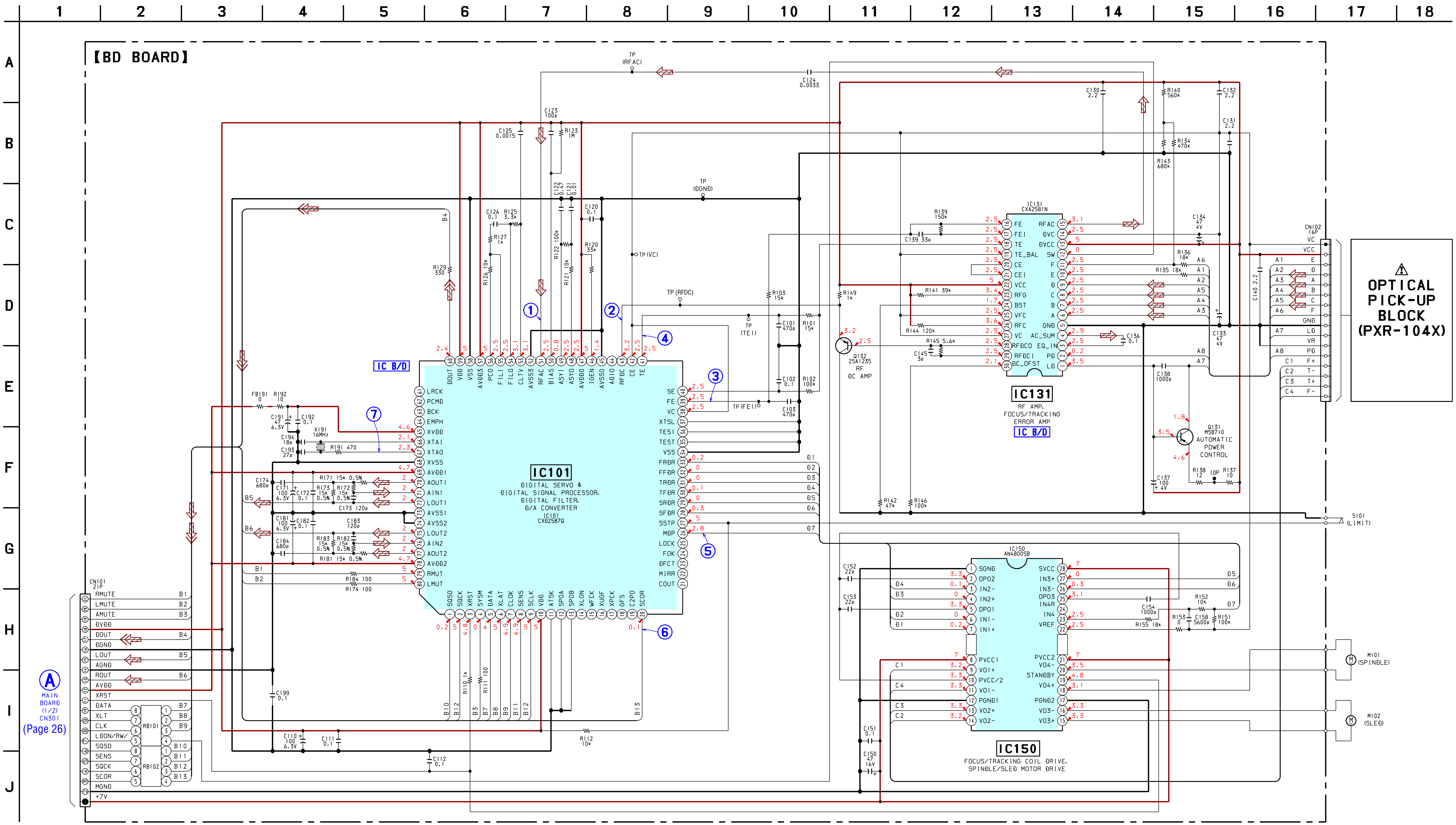


- **Semiconductor Location**

Ref. No.	Location
IC101	C-8
IC131	E-8
IC150	E-10
Q131	F-6
Q132	E-6

7-3. SCHEMATIC DIAGRAM – BD Section –

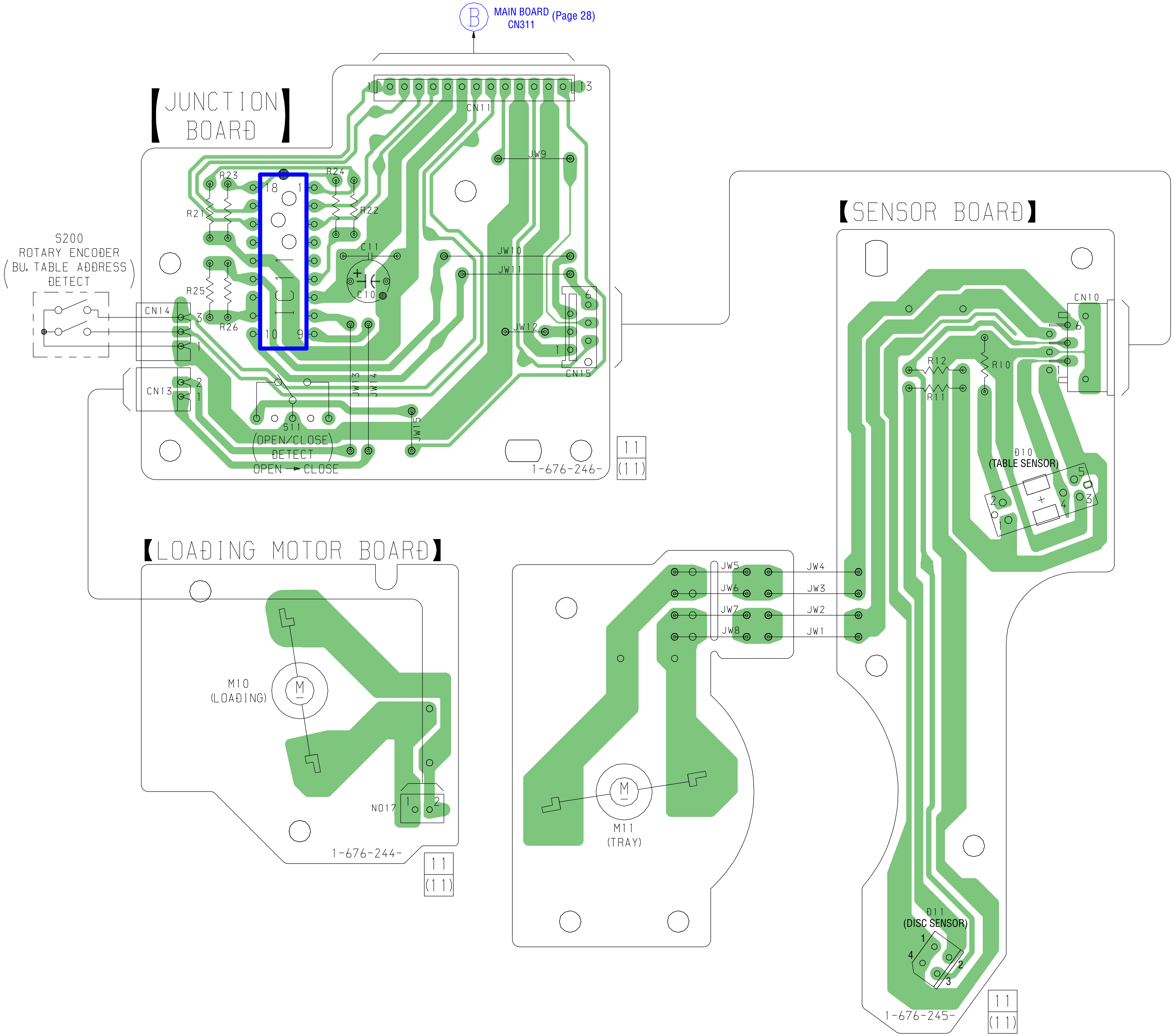
• See page 32 for Waveforms. • See page 29 for IC Block Diagrams.



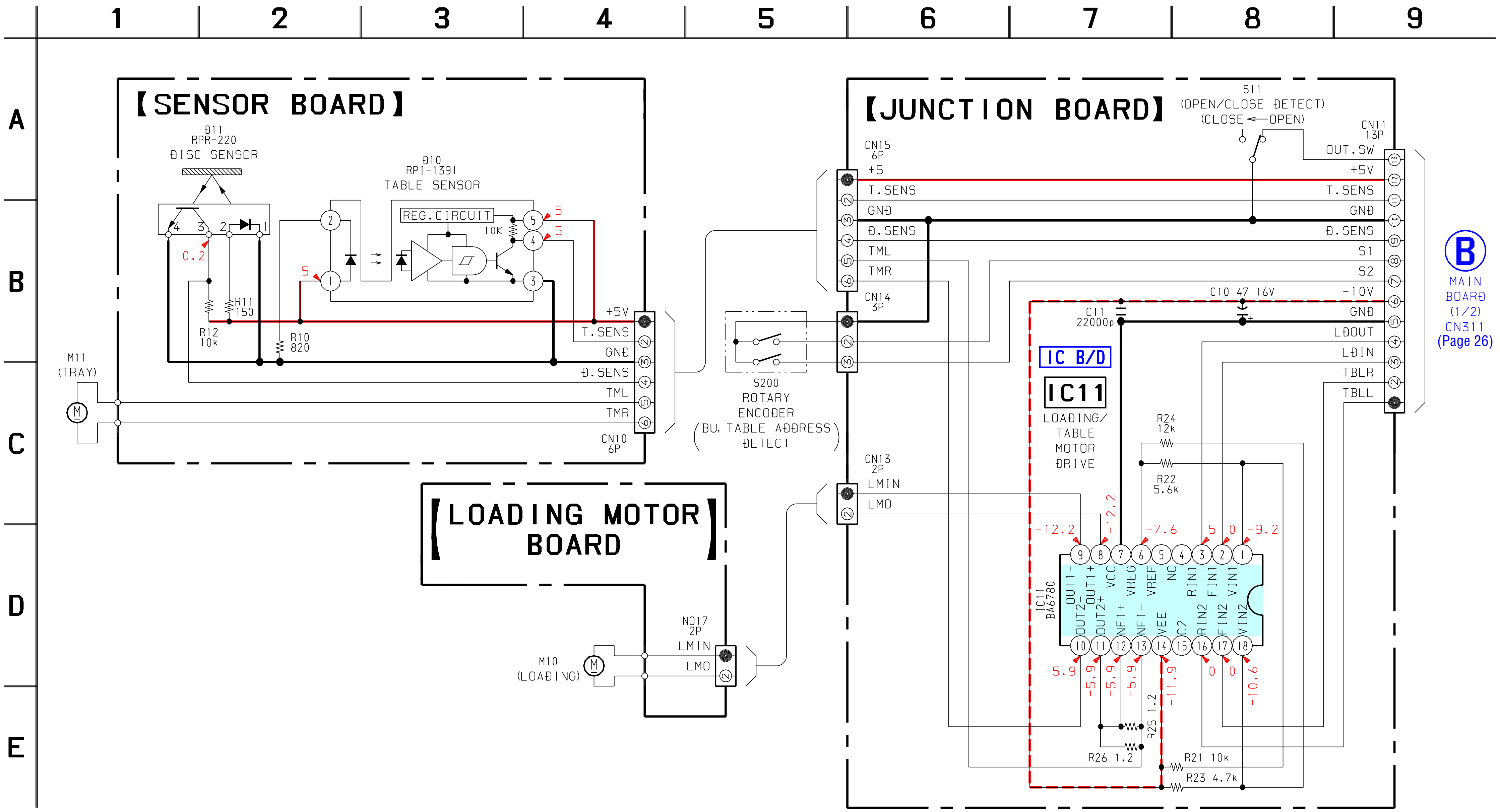
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-4. PRINTED WIRING BOARDS – MOTOR/SENSOR Section –

• See page 21 for Circuit Boards Location.

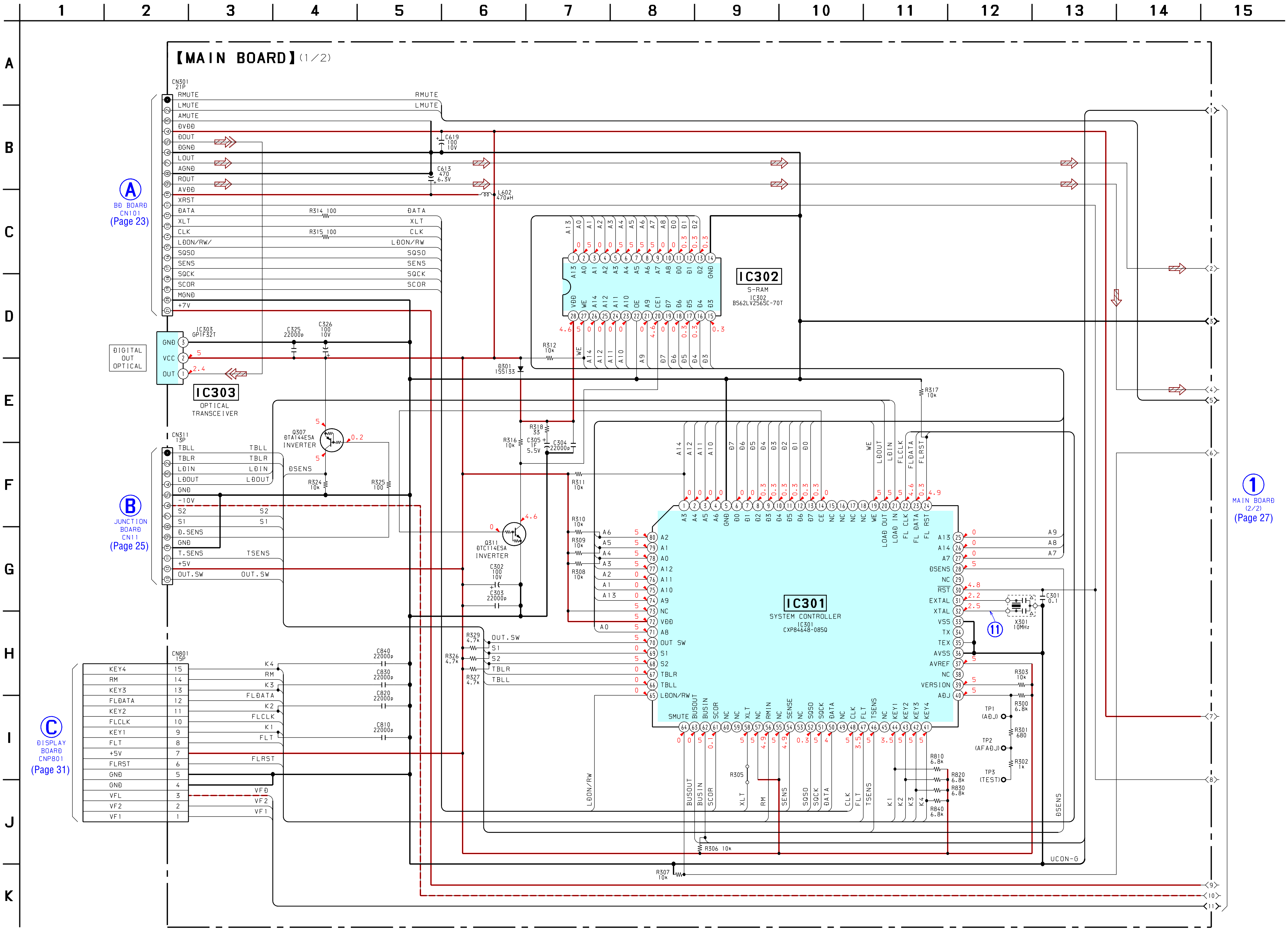


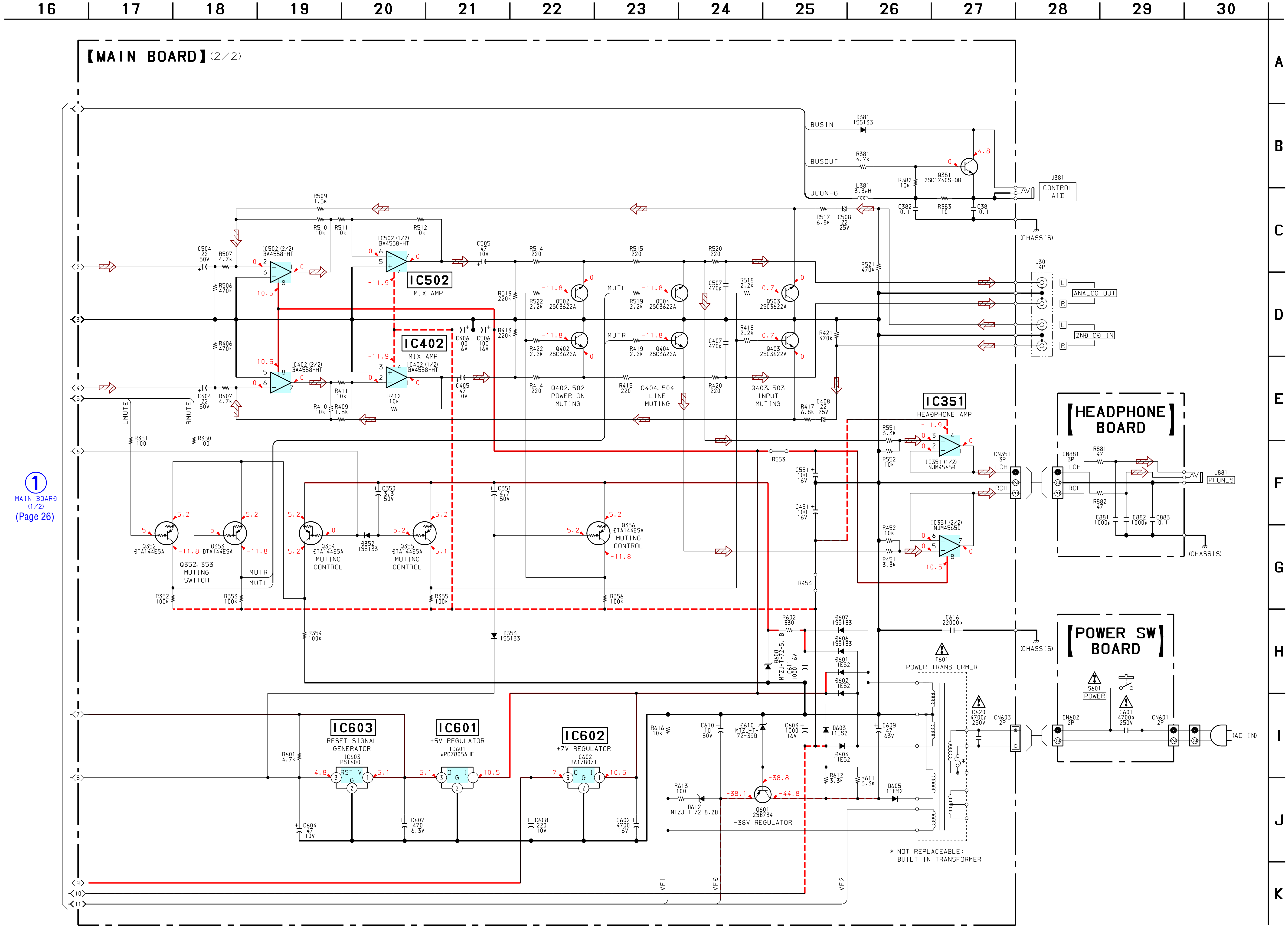
7-5. SCHEMATIC DIAGRAM – MOTOR/SENSOR Section – • See page 29 for IC Block Diagram.



7-6. SCHEMATIC DIAGRAM – MAIN Section (1/2) –

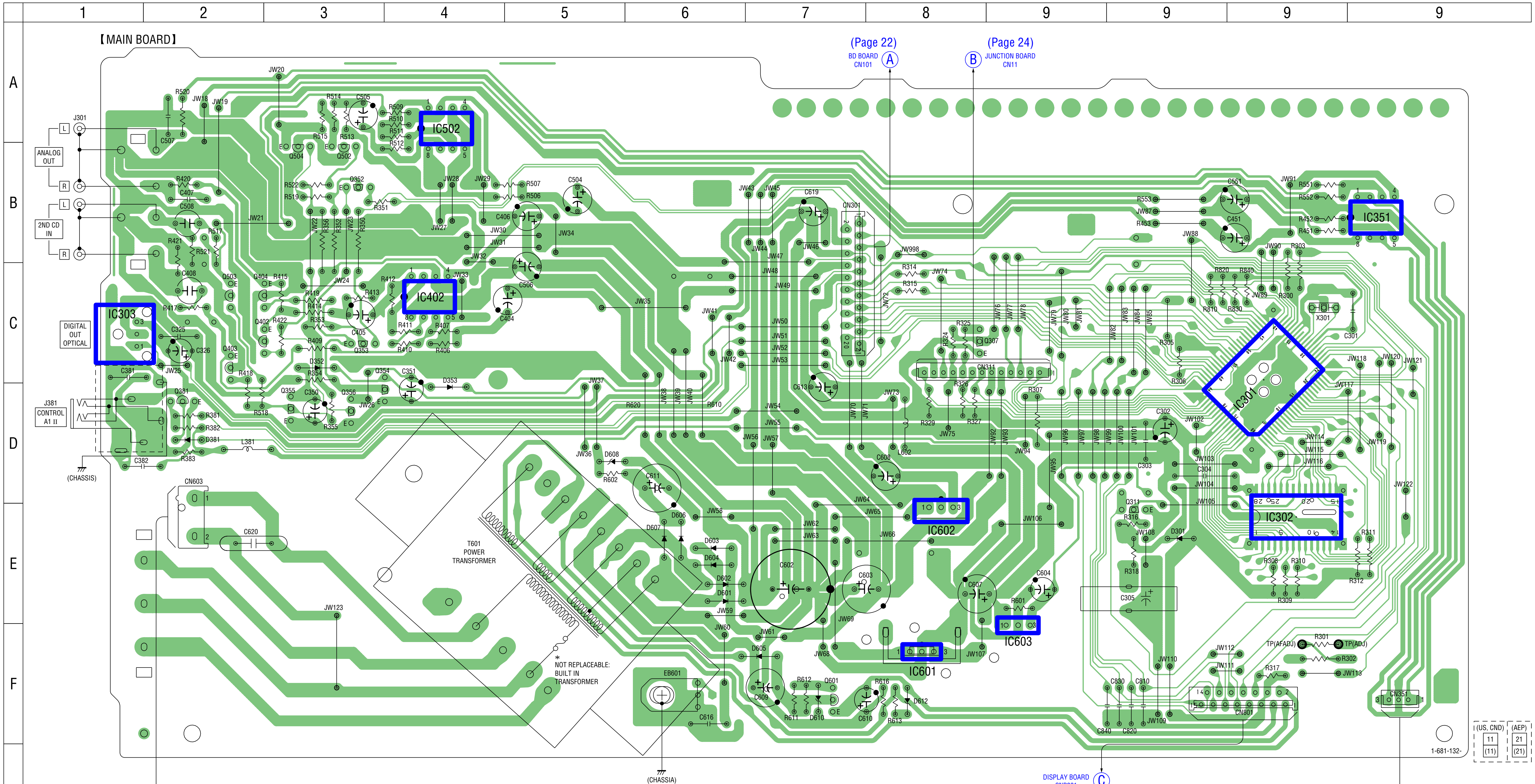
• See page 32 for Waveform.

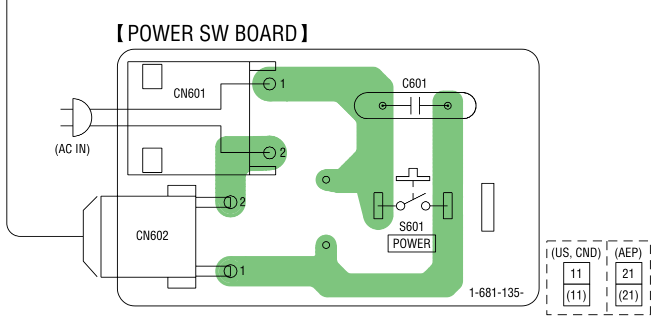


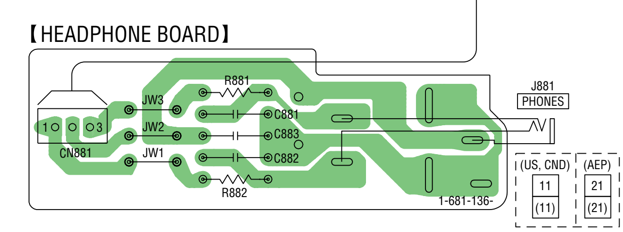


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-8. PRINTED WIRING BOARDS – MAIN Section – • See page 21 for Circuit Boards Location.







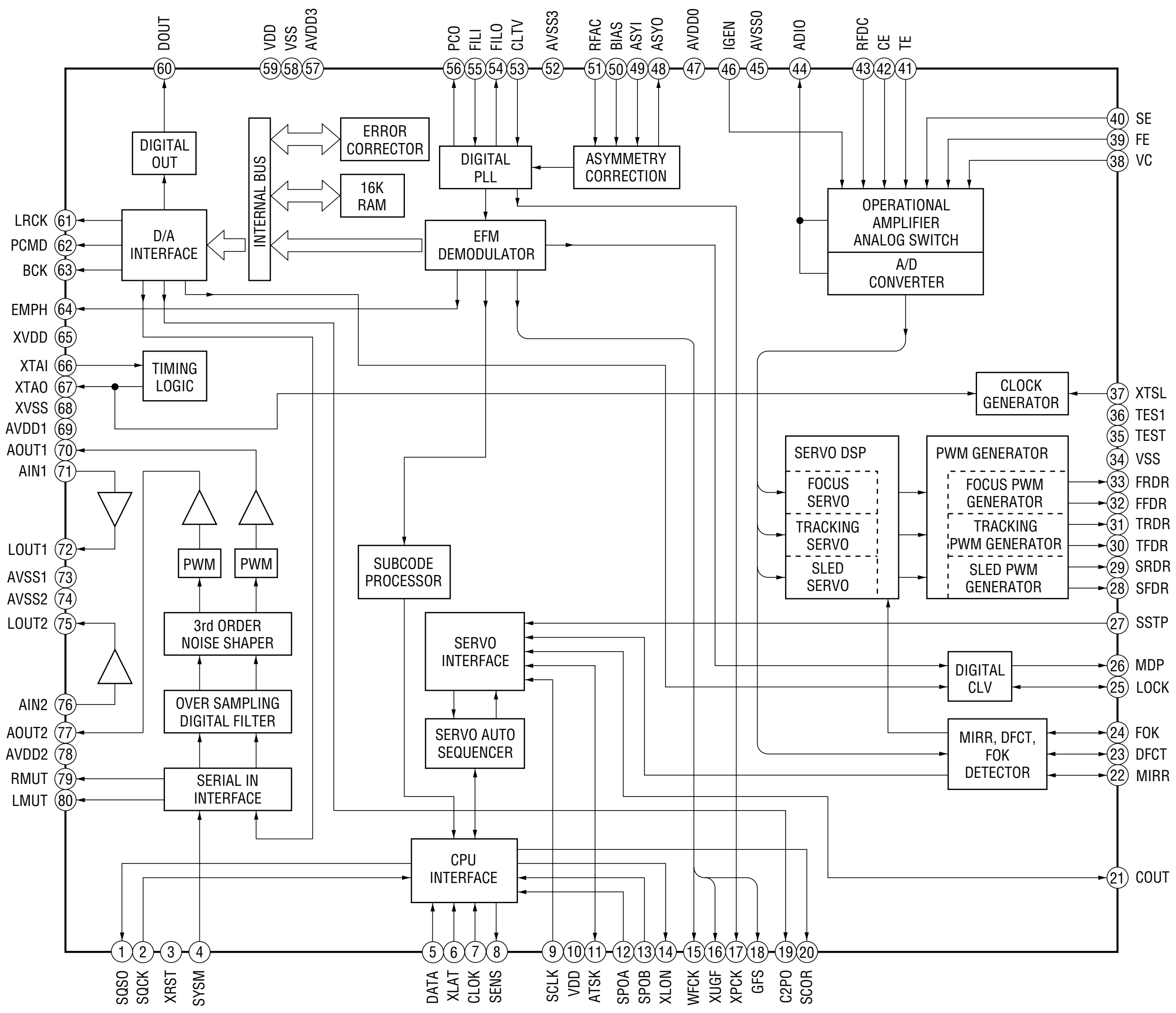
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D301	E-9	D607	E-6	IC502	A-4	Q355	D-3
D352	C-3	D608	D-5	IC601	F-8	Q356	D-3
D353	D-4	D610	F-7	IC602	E-8	Q381	D-2
D381	D-2	D612	F-8	IC603	F-9	Q402	C-2
D601	E-6					Q403	C-2
D602	E-6	IC301	D-9	Q307	C-8	Q404	C-2
D603	E-6	IC302	E-9	Q311	E-9	Q502	B-3
D604	E-6	IC303	C-1	Q352	B-3	Q503	C-2
D605	F-7	IC351	B-9	Q353	C-3	Q504	B-3
D606	E-6	IC402	C-4	Q354	D-4	Q601	F-7

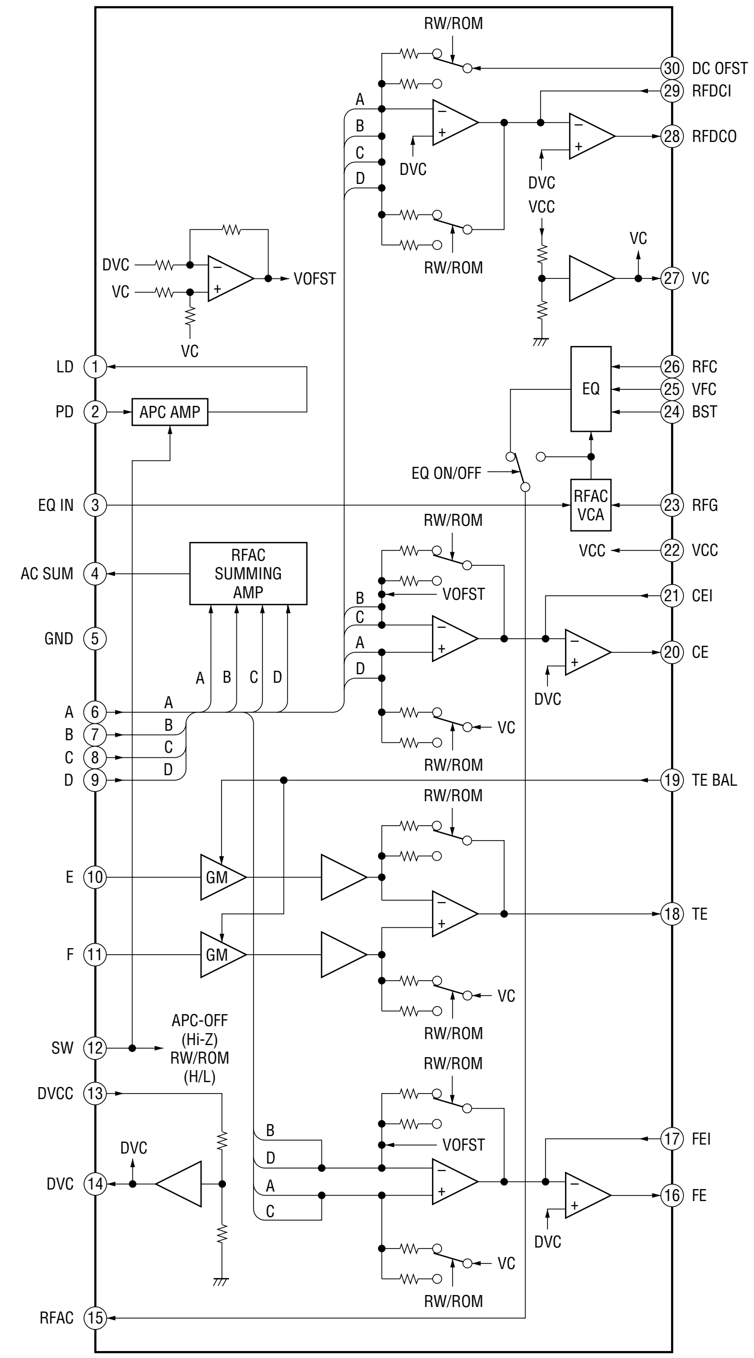
- **IC Block Diagrams**

– BD Board –

IC101 CXD2587Q

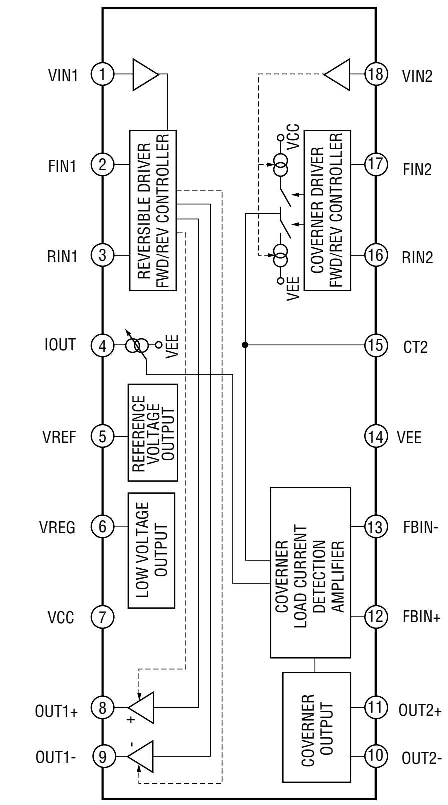


IC131 CXA2581N-T4

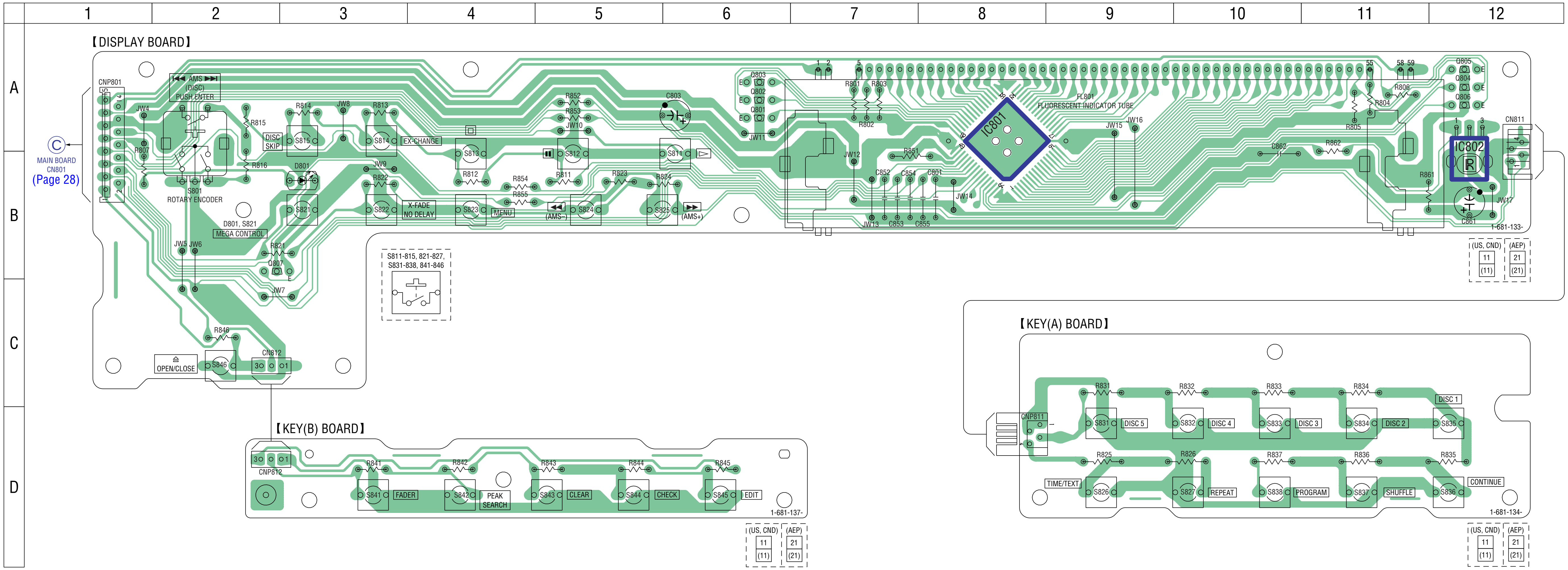


– JUNCTION Board –

IC11 BA6780



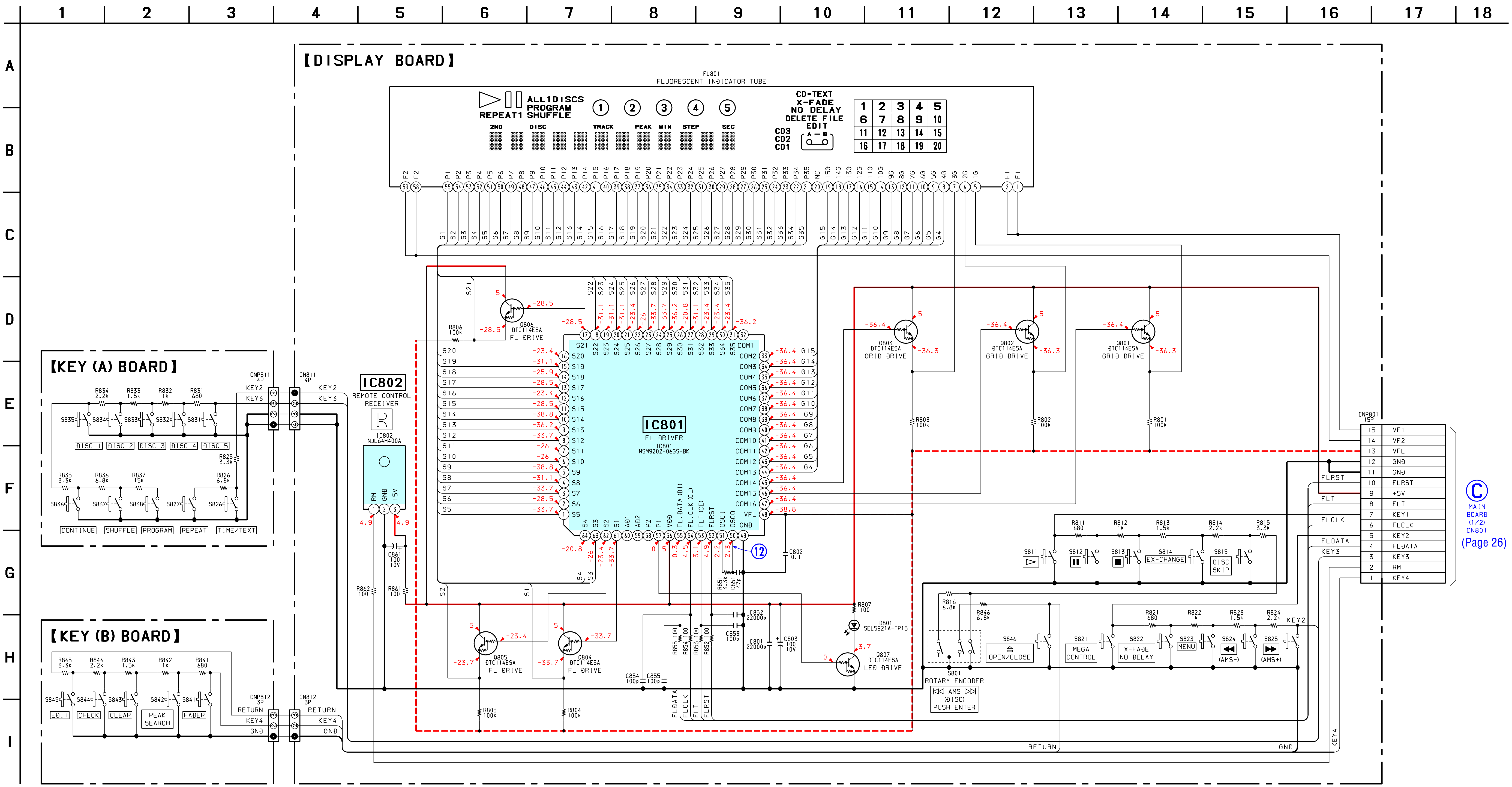
7-9. PRINTED WIRING BOARDS – DISPLAY Section – • See page 21 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location
D801	B-3
IC801	A-8
IC802	B-12
Q801	A-6
Q802	A-6
Q803	A-6
Q804	A-12
Q805	A-12
Q806	A-12
Q807	B-2

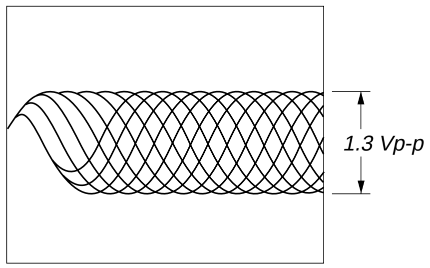
7-10. SCHEMATIC DIAGRAM – DISPLAY Section – • See page 32 for Waveform.



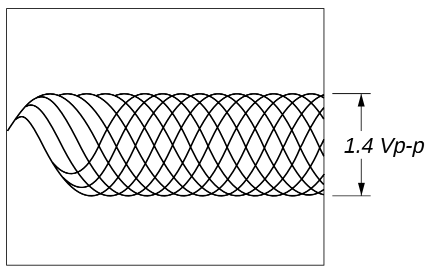
• **Waveforms**

– BD Board –

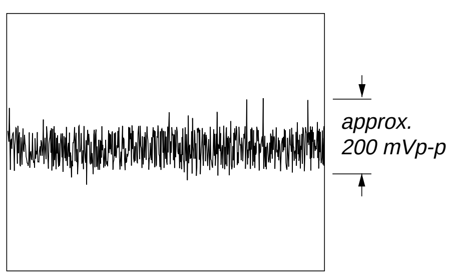
❶ IC101 51 (RFAC) (CD Play Mode)



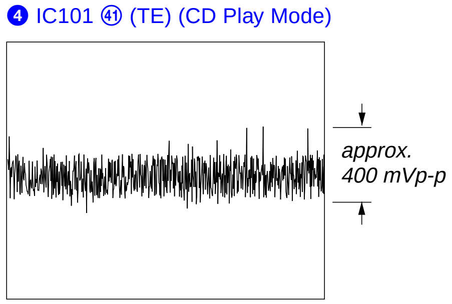
❷ IC101 43 (RFDC) (CD Play Mode)



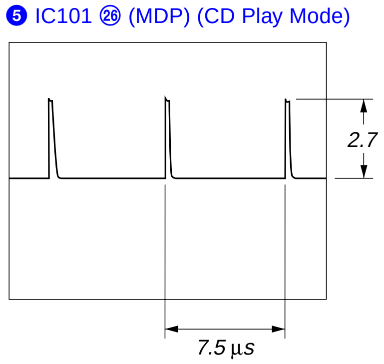
❸ IC101 39 (FE) (CD Play Mode)



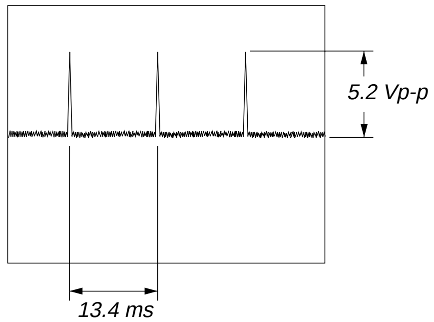
❹ IC101 41 (TE) (CD Play Mode)



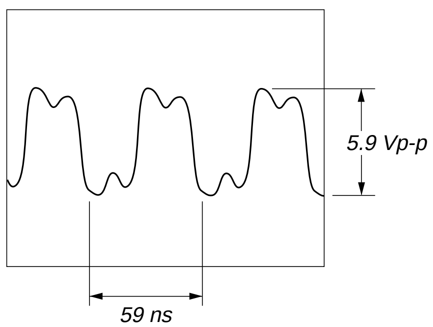
❺ IC101 26 (MDP) (CD Play Mode)



❻ IC101 20 (SCOR) (CD Play Mode)

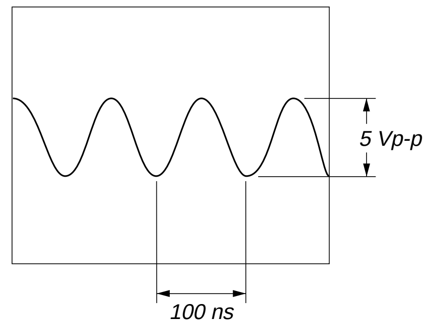


❼ IC101 67 (XTAO) (CD Play Mode)



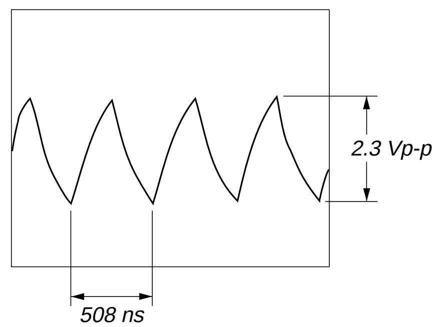
– MAIN Board –

⓫ IC301 32 (XTAL)



– DISPLAY Board –

⓬ IC801 50 (OSCO)



7-11. IC PIN FUNCTION DESCRIPTION

• **BD BOARD IC101 CXD2587Q**
(DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO PROCESSOR, DIGITAL FILTER, D/A CONVERTER)

Pin No.	Pin Name	I/O	Description
1	SQSO	O	Subcode Q data output to the system controller (IC301)
2	SQCK	I	Subcode Q data reading clock signal input from the system controller (IC301)
3	XRST	I	System reset signal input from the system controller (IC301) "L": reset
4	SYSM	I	Analog line muting on/off control signal input terminal "H": line muting on Not used (fixed at "L")
5	DATA	I	Command serial data input from the system controller (IC301)
6	XLAT	I	Command latch pulse input from the system controller (IC301)
7	CLOK	I	Command serial data transfer clock signal input from the system controller (IC301)
8	SENS	O	Internal status monitor output to the system controller (IC301)
9	SCLK	I	SENSE serial data reading clock input from the system controller (IC301)
10	VDD	—	Power supply terminal (+5V) (digital system)
11	ATSK	I/O	Input pin for anti-shock Not used (fixed at "L")
12	SPOA	I	Microcomputer escape interface input A terminal Not used (fixed at "L")
13	SPOB	I	Microcomputer escape interface input B terminal Not used (fixed at "L")
14	XLON	O	Microcomputer escape interface output terminal Not used (open)
15	WFCK	O	WFCK output terminal Not used (open)
16	XUGF	O	Not used (open)
17	XPCK	O	Not used (open)
18	GFS	O	Not used (open)
19	C2PO	O	Not used (open)
20	SCOR	O	Subcode sync (S0+S1) detection signal output to the system controller (IC301)
21	COUT	I/O	Numbers of track counted signal input/output terminal Not used (open)
22	MIRR	I/O	Mirror signal input/output terminal Not used (open)
23	DFCT	I/O	Defect signal input/output terminal Not used (open)
24	FOK	I/O	Focus OK input/output terminal Not used (open)
25	LOCK	I/O	GFS is sampled by 460 Hz "H" when GFS is "H" Not used (open)
26	MDP	O	Spindle motor (M101) servo drive signal output to the AN48005B (IC150)
27	SSTP	I	Limit in detect switch (S101) input terminal
28	SFDR	O	Sled servo drive PWM signal (+) output to the AN48005B (IC150)
29	SRDR	O	Sled servo drive PWM signal (–) output to the AN48005B (IC150)
30	TFDR	O	Tracking servo drive PWM signal (+) output to the AN48005B (IC150)
31	TRDR	O	Tracking servo drive PWM signal (–) output to the AN48005B (IC150)
32	FFDR	O	Focus servo drive PWM signal (+) output to the AN48005B (IC150)
33	FRDR	O	Focus servo drive PWM signal (–) output to the AN48005B (IC150)
34	VSS	—	Ground terminal (digital system)
35	TEST	I	Input terminal for the test (fixed at "L")
36	TES1	I	Input terminal for the test (fixed at "L")
37	XTSL	I	Input terminal for the system clock frequency setting "L": 45.1584 MHz, "H": 22.5792 MHz (fixed at "L" in this set)
38	VC	I	Middle point voltage (+2.5V) input from the CXA2581N (IC131)
39	FE	I	Focus error signal input from the CXA2581N (IC131)
40	SE	I	Sled error signal input from the CXA2581N (IC131)
41	TE	I	Tracking error signal input from the CXA2581N (IC131)
42	CE	I	Command chip enable signal input from the CXA2581N (IC131)

32

Pin No.	Pin Name	I/O	Description
43	RFDC	I	RF signal input from the CXA2581N (IC131)
44	ADIO	O	Monitor output of the A/D converter input signal Not used (open)
45	AVSS0	—	Ground terminal (digital system)
46	IGEN	I	Stabilized current input for operational amplifiers
47	AVDD0	—	Power supply terminal (+5V) (digital system)
48	ASYO	O	Playback EFM full-swing output terminal
49	ASYI	I	Playback EFM asymmetry comparator voltage input terminal
50	BIAS	I	Playback EFM asymmetry circuit constant current input terminal
51	RFAC	I	EFM signal input from the CXA2581N (IC131)
52	AVSS3	—	Ground terminal (digital system)
53	CLTV	I	Internal VCO control voltage input of the playback master PLL
54	FILO	O	Filter output for master clock of the playback master PLL
55	FILI	I	Filter input for master clock of the playback master PLL
56	PCO	O	Phase comparison output for master clock of the playback EFM master PLL
57	AVDD3	—	Power supply terminal (+5V) (digital system)
58	VSS	—	Ground terminal (digital system)
59	VDD	—	Power supply terminal (+5V) (digital system)
60	DOUT	O	Digital audio signal output to the DIGITAL OUT OPTICAL (IC303)
61	LRCK	O	L/R sampling clock signal (44.1 kHz) output terminal Not used (open)
62	PCMD	O	D/A interface serial data output terminal Not used (open)
63	BCK	O	Bit clock signal (2.8224 MHz) output terminal Not used (open)
64	EMPH	O	De-emphasis control signal output terminal Not used (open)
65	XVDD	—	Power supply terminal (+5V) (crystal oscillator system)
66	XTAI	I	System clock input terminal (16.9344 MHz)
67	XTAO	O	System clock output terminal (16.9344 MHz)
68	XVSS	—	Ground terminal (crystal oscillator system)
69	AVDD1	—	Power supply terminal (+5V) (analog system)
70	AOUT1	O	L-ch analog audio signal output terminal
71	AIN1	I	L-ch operational amplifiers input terminal
72	LOUT1	O	L-ch line output terminal
73	AVSS1	—	Ground terminal (analog system)
74	AVSS2	—	Ground terminal (analog system)
75	LOUT2	O	R-ch line output terminal
76	AIN2	I	R-ch operational amplifiers input terminal
77	AOUT2	O	R-ch analog audio signal output terminal
78	AVDD2	—	Power supply terminal (+5V) (analog system)
79	RMUT	O	R-ch line muting on/off control signal output terminal
80	LMUT	O	L-ch line muting on/off control signal output terminal

• MAIN BOARD IC301 CXP84648-085Q (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1 to 4	A3 to A6	O	Address signal output to the static RAM (IC302)
5	GND	—	Ground terminal
6 to 13	D0 to D7	I/O	Two-way data bus with the static RAM (IC302)
14	CE	O	Chip select signal output to the static RAM (IC302)
15 to 18	NC	—	Not used (open)
19	WE	O	Write enable signal output to the static RAM (IC302)
20	LOAD OUT	O	Loading motor (M10) drive signal output to the BA6780 (IC11)
21	LOAD IN	O	Loading motor (M10) drive signal output to the BA6780 (IC11)
22	FL CLK	O	Serial data transfer clock signal output to the FL driver (IC801)
23	FL DATA	O	Serial data output to the FL driver (IC801)
24	FL RST	O	Reset signal output to the FL driver (IC801)
25 to 27	A13, A14, A7	O	Address signal output to the static RAM (IC302)
28	DSENS	I	Detect signal input from the disc sensor (D11)
29	NC	—	Not used (open)
30	$\overline{\text{RST}}$	I	System reset signal input from the reset signal generator (IC603) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
31	EXTAL	I	Main system clock input terminal (10 MHz)
32	XTAL	O	Main system clock output terminal (10 MHz)
33	VSS	—	Ground terminal
34	TX	O	Sub system clock output terminal Not used (open)
35	TEX	I	Sub system clock input terminal Not used (fixed at "L")
36	AVSS	—	Ground terminal (for A/D converter)
37	AVREF	I	Reference voltage input terminal (+5V)
38	NC	—	Not used (open)
39	VERSION	I	Model Destination setting terminal
40	ADJ	I	Setting terminal for the test mode
41	KEY4	I	Key input terminal (A/D input) (S941 to S845) FADER, PEAK SEARCH, CLEAR, CHECK, EDIT keys input
42	KEY3	I	Key input terminal (A/D input) (S831 to S838) DISC 5, DISC 4, DISC 3, DISC 2, DISC 1, CONTINUE, SHUFFLE, PROGRAM keys input
43	KEY2	I	Key input terminal (A/D input) (S821 to S827) MEGA CONTROL, X-FADER NO DELAY, MENU, ◀◀ (AMS–), ▶▶ (AMS+), TIME/TEXT, REPEAT keys input
44	KEY1	I	Rotary encoder key input terminal (A/D input) (S801, S811 to S815) ⏮ AMS ⏭ (DISC) PUSH ENTER, ▷, ❚❚, □, EX-CHANGE, DISC SKIP keys input
45	NC	—	Not used (open)
46	TSENS	I	Detect signal input from the table sensor (D10)
47	FLT	O	Serial data latch pulse output to the FL driver (IC801)
48	CLK	O	Serial data transfer clock signal output to the CXD2587Q (IC101)
49	NC	O	Not used (open)
50	DATA	O	Serial data output to the CXD2587Q (IC101)
51	SQCK	O	Sub-code Q data reading clock signal output to the CXD2587Q (IC101)
52	SQSO	I	Sub-code Q data signal input from the CXD2587Q (IC101)
53	NC	—	Not used (open)
54	SENSE	I	Internal status (SENSE) signal input from the CXD2587Q (IC101)
55	NC	I	Not used (fixed at "H")
56	RMIN	I	Remote control signal input from the remote control receiver (IC802)

Pin No.	Pin Name	I/O	Description
57	NC	I	Not used (fixed at "H")
58	XLT	O	Serial data latch pulse signal output to the CXD2587Q (IC101)
59, 60	NC	—	Not used (open)
61	SCOR	I	Sub-code sync (S0+S1) detection signal input from the CXD2587Q (IC101)
62	BUSIN	I	Sircs remote control signal input from the CONTROL A1II
63	BUSOUT	O	Sircs remote control signal output to the CONTROL A1II
64	SMUTE	O	Muting on/off control signal output terminal "H" active
65	LDON/RW	O	Laser power control signal output to the CXA2581N (IC131) "H" active
66	TBLL	O	Table motor drive signal (counterclockwise) output to the BA6780 (IC11)
67	TBLR	O	Table motor drive signal (clockwise) output to the BA6780 (IC11)
68, 69	S2, S1	I	Detect signal input from the table address detect switch (S200)
70	OUT SW	I	Detect signal input from the open/close detect switch (S11)
71	A8	O	Address signal output to the static RAM (IC302)
72	VDD	—	Power supply terminal (+5V)
73	NC	—	Not used (fixed at "H")
74 to 80	A9 to A12, A0 to A2	O	Address signal output to the static RAM (IC302)

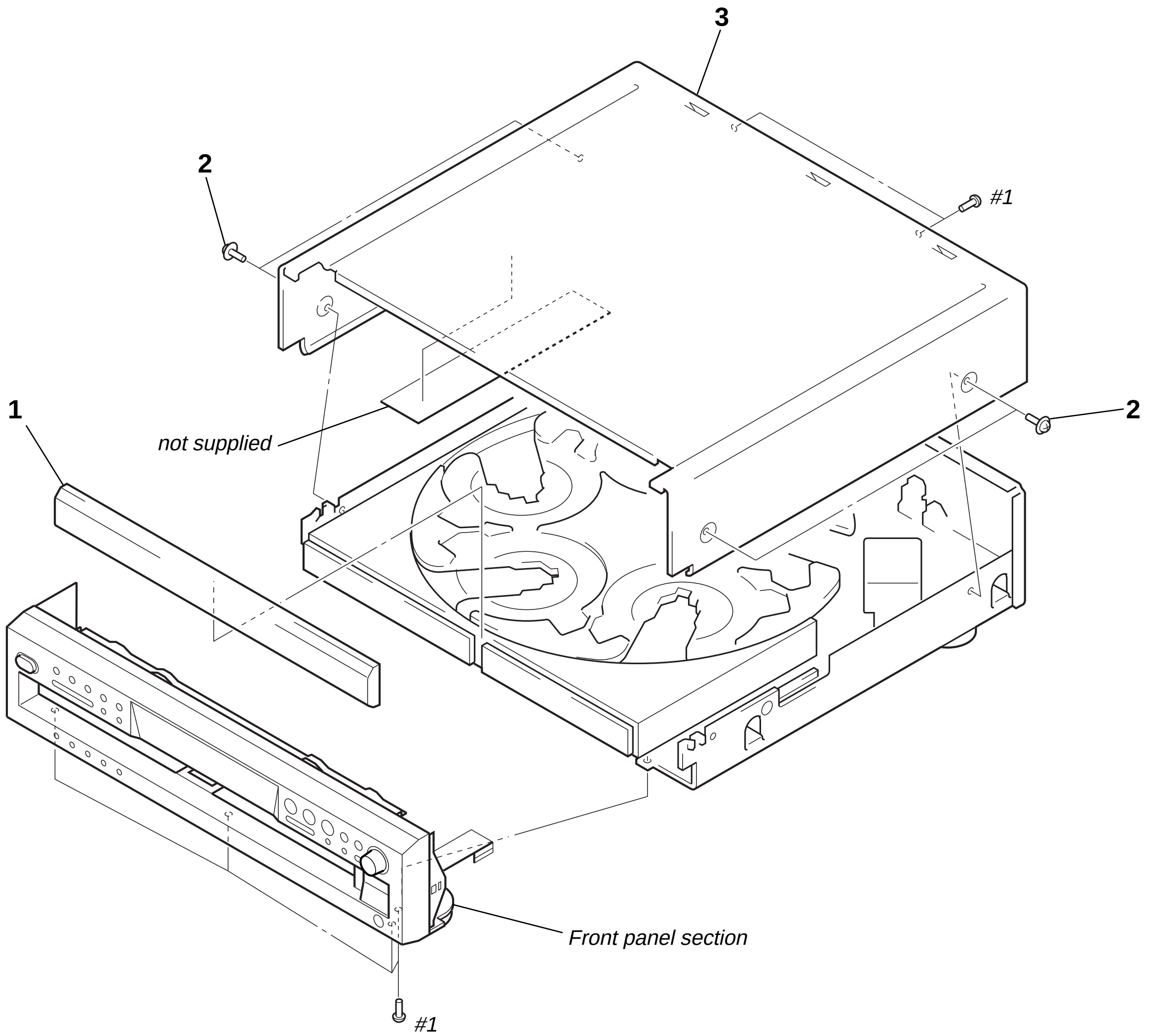
SECTION 8
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.
- Abbreviation
  CND : Canadian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

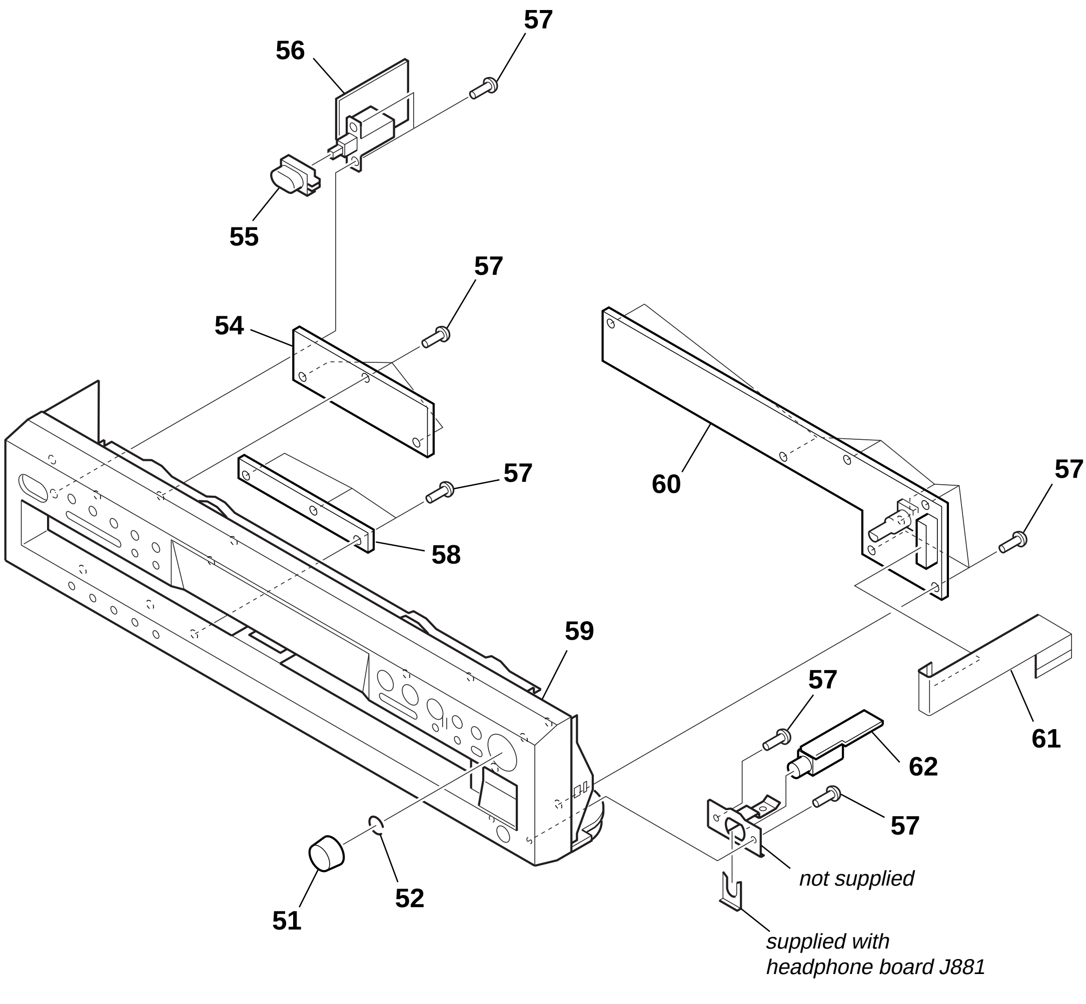
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

8-1. CASE SECTION



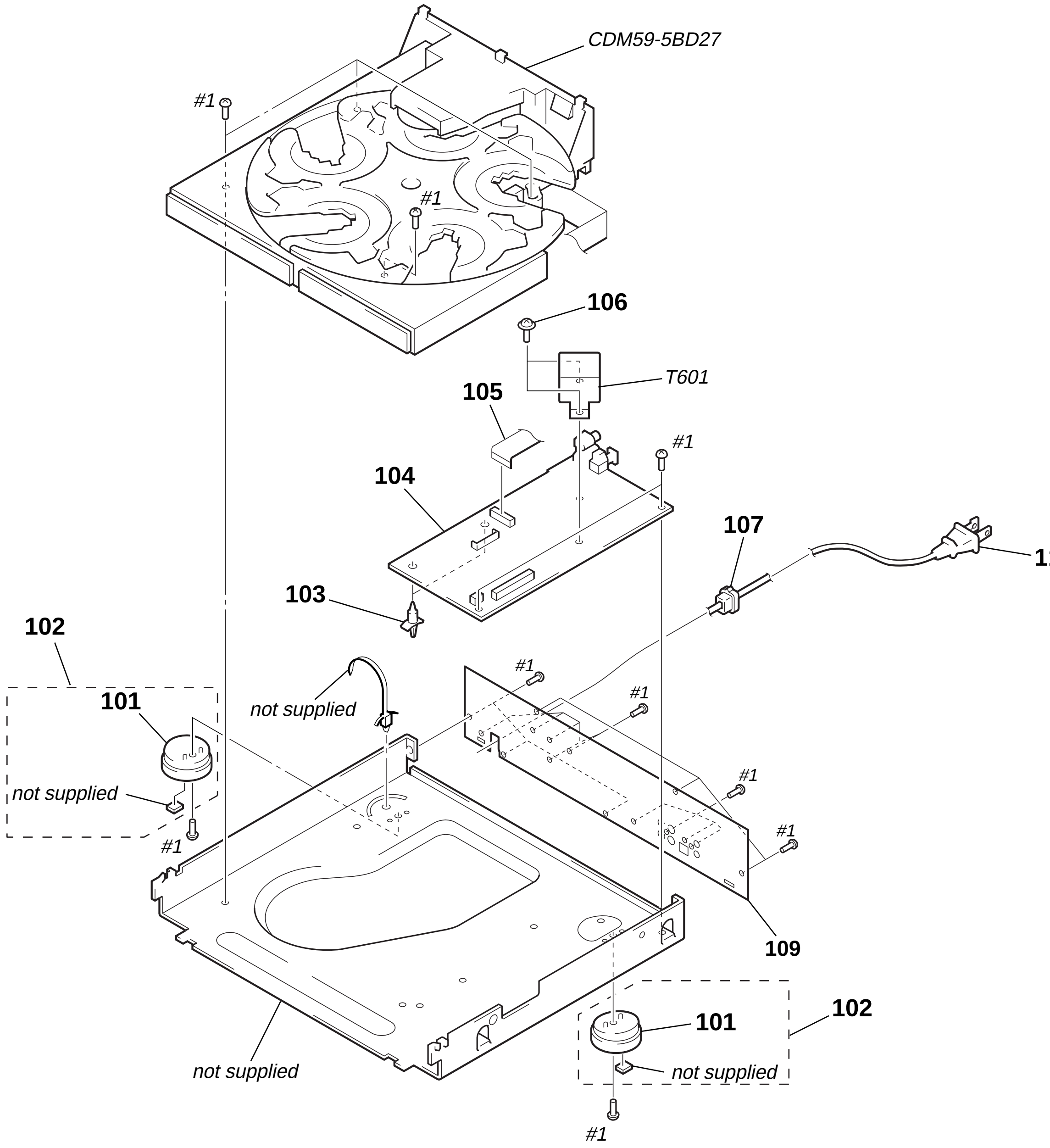
Ref. No.	Part No.	Description	Remark
1	4-231-683-11	PANEL, LOADING	
2	4-210-291-01	SCREW (CASE 3 TP2)	
3	4-231-686-11	CASE (409538)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

8-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-231-928-01	KNOB (AMS)	
52	3-354-981-11	SPRING (SUS), RING	
54	1-681-134-11	KEY (A) BOARD (US, CND)	
54	1-681-134-21	KEY (A) BOARD (AEP)	
55	4-231-973-01	BUTTON (POWER)	
56	1-681-135-11	POWER SW BOARD (US, CND)	
56	1-681-135-21	POWER SW BOARD (AEP)	
57	4-951-620-01	SCREW (2.6X8), +BVTP	
58	1-681-137-11	KEY (B) BOARD (US, CND)	
58	1-681-137-21	KEY (B) BOARD (AEP)	
59	X-4953-512-1	PANEL ASSY, FRONT (US, CND)	
59	X-4953-521-1	PANEL ASSY, FRONT (AEP)	
60	A-4476-754-A	DISPLAY BOARD (US, CND)	
60	A-4476-660-A	DISPLAY BOARD (AEP)	
61	1-757-649-11	WIRE (FLAT TYPE) (15 CORE)	
62	1-681-136-11	HEADPHONE BOARD (US, CND)	
62	1-681-136-21	HEADPHONE BOARD (AEP)	

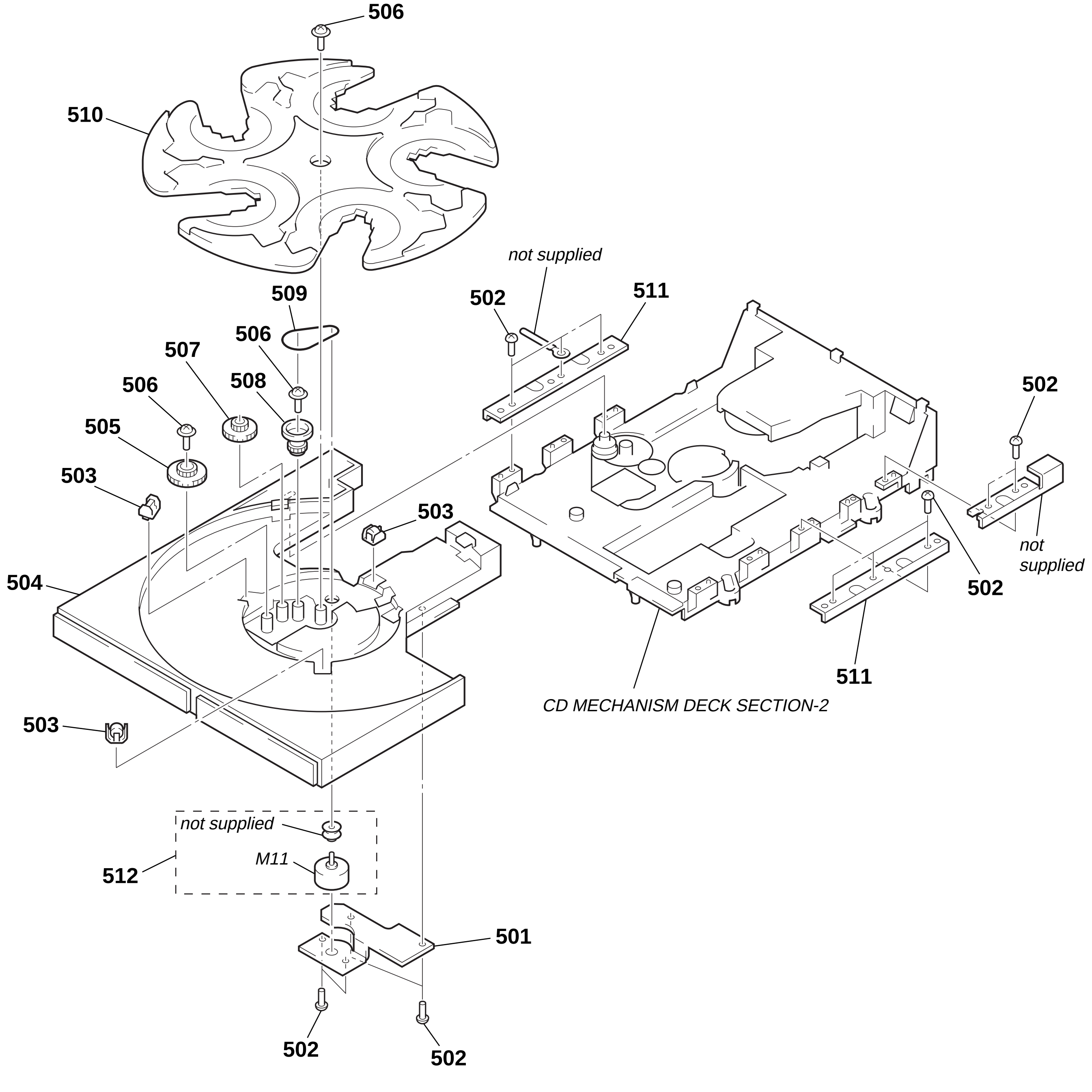
8-3. CHASSIS SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

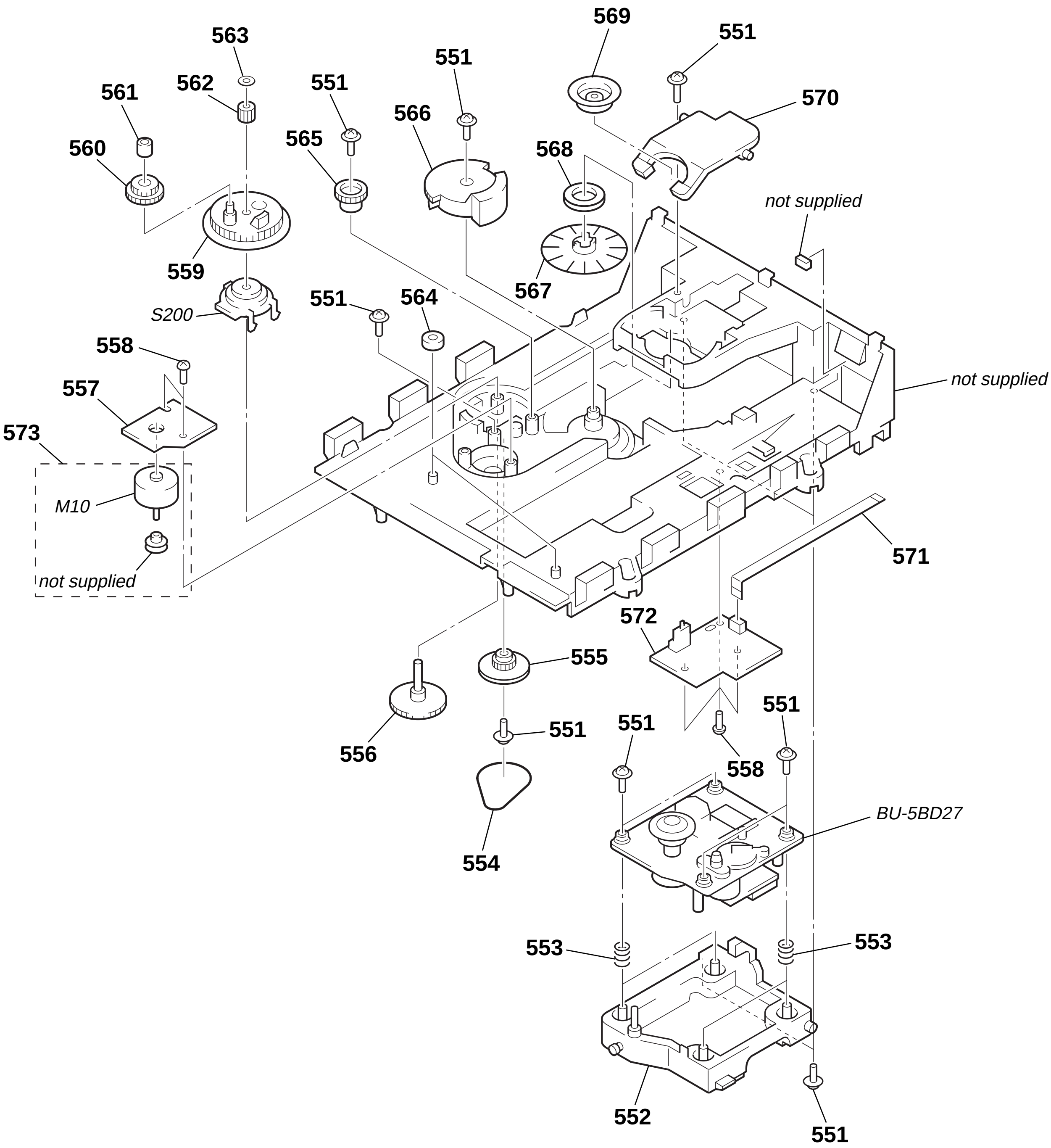
Ref. No.	Part No.	Description	Remark
101	4-232-237-01	FOOT (DIA. 30)	
102	X-4953-448-1	FOOT ASSY	
103	4-943-687-01	HOLDER, BOARD	
104	A-4725-582-A	MAIN BOARD, COMPLETE (US, CND)	
104	A-4725-593-A	MAIN BOARD, COMPLETE (AEP)	
105	1-757-648-11	WIRE (FLAT TYPE) (21 CORE)	
106	3-703-249-01	SCREW, S TIGHT, +PTTWH 3X6	
107	3-703-244-21	BUSHING (2104), CORD	
109	4-233-720-01	PANEL, BACK (US)	
109	4-233-720-11	PANEL, BACK (CND)	
109	4-233-720-21	PANEL, BACK (AEP)	
⚠110	1-575-651-21	CORD, POWER (AEP)	
⚠110	1-783-531-31	CORD, POWER (US, CND)	
⚠T601	1-435-342-11	TRANSFORMER, POWER (US, CND)	
⚠T601	1-435-343-11	TRANSFORMER, POWER (AEP)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

8-4. CD MECHANISM DECK SECTION-1 (CDM59-5BD27)



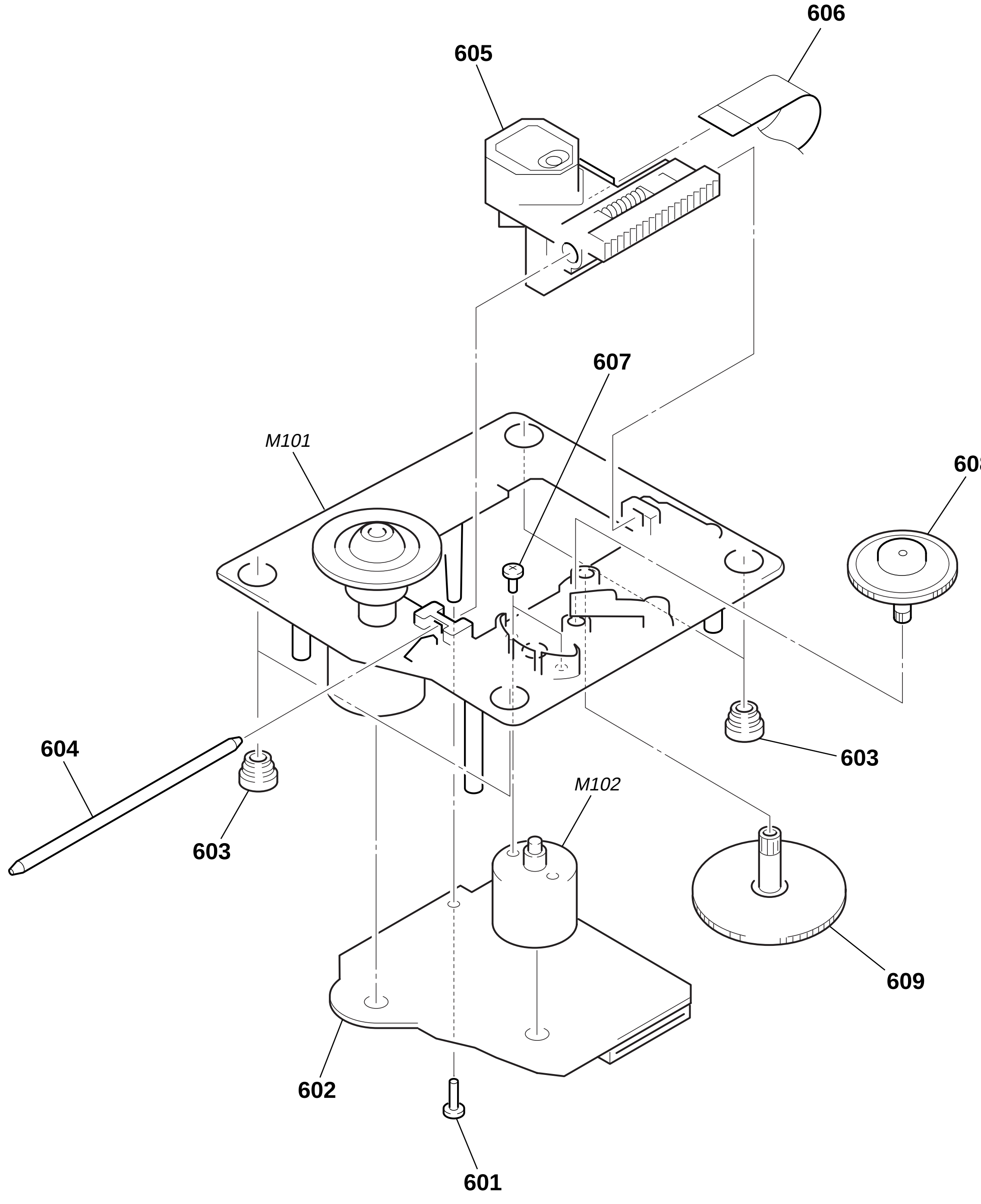
Ref. No.	Part No.	Description	Remark
501	1-676-245-11	SENSOR BOARD	
502	4-218-253-31	SCREW (M2.6), +BTTP	
* 503	X-4924-457-1	ROLLER ASSY	
504	4-224-602-01	TABLE	
505	4-224-617-01	GEAR (RM-E)	
506	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
507	4-224-616-01	GEAR (RM-M)	
508	4-224-615-03	GEAR (RM-B)	
509	4-225-328-01	BELT (ROTARY)	
510	4-224-603-01	TRAY	
511	4-224-619-01	BRACKET (GUIDE)	
512	A-4672-867-A	MOTOR ASSY, ROTARY (TRAY)	
M11	1-541-632-12	MOTOR, DC (TRAY)	

8-5. CD MECHANISM DECK SECTION-2 (CDM59-5BD27)



Ref. No.	Part No.	Description	Remark
551	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
552	X-4952-312-1	HOLDER (BU) ASSY	
553	4-959-996-01	SPRING (932), COMPRESSION	
554	4-225-885-01	BELT (LOADING)	
555	4-225-844-01	GEAR (LOADING A)	
556	4-224-613-01	GEAR (SHAFT)	
557	1-676-244-11	LOADING MOTOR BOARD	
558	4-218-253-31	SCREW (M2.6), +BTTP	
559	4-224-607-01	GEAR, SWING	
560	4-224-609-01	GEAR (LOADING C)	
561	4-224-608-01	COLLAR, SWING	
562	4-224-611-01	GEAR (LOADING B)	
563	3-016-533-01	WASHER (FR), STOPPER	
* 564	4-951-619-01	CUSHION (A)	
565	4-224-606-01	GEAR (RV)	
566	4-224-605-01	GEAR (U/D)	
567	X-4952-019-2	PULLEY (A) ASSY, CHUCKING	
568	1-471-061-11	MAGNET ASSY	
569	4-221-688-01	PULLEY (B), CHUCKING	
570	4-224-618-01	LEVER (LIFTER)	
571	1-791-930-11	WIRE (FLAT TYPE) (6 CORE)	
572	1-676-246-11	JUNCTION BOARD	
573	A-4672-879-A	MOTOR ASSY, LOADING	
M10	1-541-632-12	MOTOR, DC (LOADING)	
S200	1-418-746-11	ENCODER, ROTARY (BU, TABLE ADDRESS DETECT)	

8-6. BASE UNIT SECTION (BU-5BD27)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
601	4-951-620-01	SCREW (2.6X8), +BVTP	
602	A-4725-568-A	BD BOARD, COMPLETE	
603	4-951-940-01	INSULATOR (BU)	
604	4-917-565-01	SHAFT, SLED	
⚠605	1-796-033-11	OPTICAL PICK-UP (PXR-104X)	
606	1-782-817-11	WIRE (FLAT TYPE) (16 CORE)	
607	3-713-786-51	SCREW +P 2X3	
608	4-917-567-01	GEAR (M)	
609	4-917-564-01	GEAR (P), FLATNESS	
M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

BD

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-4725-568-A	BD BOARD, COMPLETE			
		*******************			
		< CAPACITOR >			
C101	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C102	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C103	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C110	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C111	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C112	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C120	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C121	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C122	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C123	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C124	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C125	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C126	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C130	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C131	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C132	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C133	1-126-607-11	ELECT CHIP	47uF	20%	4V
C134	1-126-607-11	ELECT CHIP	47uF	20%	4V
C136	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C137	1-126-209-11	ELECT CHIP	100uF	20%	4V
C138	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C139	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C140	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C145	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C150	1-126-204-11	ELECT CHIP	47uF	20%	16V
C151	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C152	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C153	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C154	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C158	1-164-172-11	CERAMIC CHIP	0.0056uF	10%	25V
C171	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C172	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C173	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C174	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C181	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C182	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C183	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C184	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C191	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C192	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C193	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C194	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C199	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-784-360-11	CONNECTOR, FFC (LIF (NON-ZIF)) 21P			
CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P			
		< SHORT >			
FB191	1-216-864-11	SHORT	0		
		< IC >			
IC101	8-752-386-85	IC CXD2587Q			
IC131	8-752-089-74	IC CXA2581N-T4			
IC150	8-759-829-14	IC AN4800SB			
		< TRANSISTOR >			
Q131	8-729-010-08	TRANSISTOR	MSB710-RT1		
Q132	8-729-600-22	TRANSISTOR	2SA1235TP-1EF		
		< RESISTOR >			
R101	1-216-835-11	METAL CHIP	15K	5%	1/16W
R102	1-216-845-11	METAL CHIP	100K	5%	1/16W
R103	1-216-835-11	METAL CHIP	15K	5%	1/16W
R110	1-216-821-11	METAL CHIP	1K	5%	1/16W
R111	1-216-809-11	METAL CHIP	100	5%	1/16W
R112	1-216-833-11	METAL CHIP	10K	5%	1/16W
R120	1-216-839-11	METAL CHIP	33K	5%	1/16W
R121	1-216-833-11	METAL CHIP	10K	5%	1/16W
R122	1-216-845-11	METAL CHIP	100K	5%	1/16W
R123	1-216-857-11	METAL CHIP	1M	5%	1/16W
R125	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R126	1-216-833-11	METAL CHIP	10K	5%	1/16W
R127	1-216-821-11	METAL CHIP	1K	5%	1/16W
R129	1-216-815-11	METAL CHIP	330	5%	1/16W
R134	1-216-853-11	METAL CHIP	470K	5%	1/16W
R135	1-216-836-11	METAL CHIP	18K	5%	1/16W
R136	1-216-836-11	METAL CHIP	18K	5%	1/16W
R137	1-216-797-11	METAL CHIP	10	5%	1/16W
R138	1-216-798-11	RES-CHIP	12	5%	1/16W
R139	1-216-847-11	METAL CHIP	150K	5%	1/16W
R140	1-216-854-11	METAL CHIP	560K	5%	1/16W
R141	1-216-840-11	METAL CHIP	39K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R142	1-216-841-11	METAL CHIP	47K	5%	1/16W
R143	1-216-855-11	METAL CHIP	680K	5%	1/16W
R144	1-216-846-11	METAL CHIP	120K	5%	1/16W
R145	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R146	1-216-845-11	METAL CHIP	100K	5%	1/16W
R149	1-216-821-11	METAL CHIP	1K	5%	1/16W
R151	1-216-845-11	METAL CHIP	100K	5%	1/16W
R152	1-216-833-11	METAL CHIP	10K	5%	1/16W
R153	1-216-864-11	SHORT	0		
R155	1-216-836-11	METAL CHIP	18K	5%	1/16W
R171	1-218-720-11	METAL CHIP	15K	0.5%	1/16W
R172	1-218-720-11	METAL CHIP	15K	0.5%	1/16W
R173	1-218-720-11	METAL CHIP	15K	0.5%	1/16W
R174	1-216-809-11	METAL CHIP	100	5%	1/16W
R181	1-218-720-11	METAL CHIP	15K	0.5%	1/16W
R182	1-218-720-11	METAL CHIP	15K	0.5%	1/16W
R183	1-218-720-11	METAL CHIP	15K	0.5%	1/16W
R184	1-216-809-11	METAL CHIP	100	5%	1/16W
R191	1-216-817-11	METAL CHIP	470	5%	1/16W
R192	1-216-797-11	METAL CHIP	10	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB101	1-233-576-11	RES, CHIP NETWORK 100			
RB102	1-233-576-11	RES, CHIP NETWORK 100			
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
		< VIBRATOR >			
X191	1-767-408-21	VIBRATOR, CRYSTAL (16MHz)			

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Ref. No.	Part No.	Description			Remark
	A-4476-754-A	DISPLAY BOARD (US, CND)			
	A-4476-660-A	DISPLAY BOARD (AEP)			
		**************			
	2-389-320-01	CUSHION			
*	4-997-495-01	GUIDE (FL)			
		< CAPACITOR >			
C801	1-161-494-00	CERAMIC	0.022uF		25V
C802	1-164-159-11	CERAMIC	0.1uF		50V
C803	1-104-665-11	ELECT	100uF	20%	10V
C851	1-162-215-31	CERAMIC	47PF	5%	50V
C852	1-161-494-00	CERAMIC	0.022uF		25V
C853	1-162-282-31	CERAMIC	100PF	10%	50V
C854	1-162-282-31	CERAMIC	100PF	10%	50V
C855	1-162-282-31	CERAMIC	100PF	10%	50V
C861	1-104-665-11	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN811	1-750-185-11	CONNECTOR, BOARD TO BOARD 4P			
CNP801	1-784-776-11	CONNECTOR, FFC 15P			
		< LED >			
D801	8-719-046-36	LED SEL5921A-TP15 (MEGA CONTROL)			
		< FLUORESCENT INDICATOR TUBE >			
FL801	1-518-738-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC801	8-759-829-13	IC MSM9202-06GS-BK			
IC802	8-759-827-70	IC NJL64H400A-1			
		< TRANSISTOR >			
Q801	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
Q802	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
Q803	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
Q804	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
Q805	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
Q806	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
Q807	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
		< RESISTOR >			
R801	1-249-441-11	CARBON	100K	5%	1/4W
R802	1-249-441-11	CARBON	100K	5%	1/4W
R803	1-249-441-11	CARBON	100K	5%	1/4W
R804	1-249-441-11	CARBON	100K	5%	1/4W
R805	1-249-441-11	CARBON	100K	5%	1/4W
R806	1-249-441-11	CARBON	100K	5%	1/4W
R807	1-247-807-31	CARBON	100	5%	1/4W
R811	1-249-415-11	CARBON	680	5%	1/4W
R812	1-249-417-11	CARBON	1K	5%	1/4W
R813	1-249-419-11	CARBON	1.5K	5%	1/4W
R814	1-249-421-11	CARBON	2.2K	5%	1/4W
R815	1-247-843-11	CARBON	3.3K	5%	1/4W
R816	1-249-427-11	CARBON	6.8K	5%	1/4W
R821	1-249-415-11	CARBON	680	5%	1/4W
R822	1-249-417-11	CARBON	1K	5%	1/4W
R823	1-249-419-11	CARBON	1.5K	5%	1/4W
R824	1-249-421-11	CARBON	2.2K	5%	1/4W
R846	1-249-427-11	CARBON	6.8K	5%	1/4W
R851	1-247-843-11	CARBON	3.3K	5%	1/4W
R852	1-247-807-31	CARBON	100	5%	1/4W
R853	1-247-807-31	CARBON	100	5%	1/4W
R854	1-247-807-31	CARBON	100	5%	1/4W
R855	1-247-807-31	CARBON	100	5%	1/4W
R861	1-247-807-31	CARBON	100	5%	1/4W
R862	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S801	1-475-543-11	ENCODER, ROTARY (⏮ AMS ⏭ (DISC), PUSH ENTER)			
S811	1-771-349-21	SWITCH, KEYBOARD (▷)			
S812	1-771-349-21	SWITCH, KEYBOARD (❚❚)			
S813	1-771-349-21	SWITCH, KEYBOARD (□)			
S814	1-771-349-21	SWITCH, KEYBOARD (EX-CHANGE)			
S815	1-771-349-21	SWITCH, KEYBOARD (DISC SKIP)			
S821	1-771-349-21	SWITCH, KEYBOARD (MEGA CONTROL)			
S822	1-771-349-21	SWITCH, KEYBOARD (X-FADE, NO DELAY)			
S823	1-771-349-21	SWITCH, KEYBOARD (MENU)			
S824	1-771-349-21	SWITCH, KEYBOARD (◀◀, (AMS –))			
S825	1-771-349-21	SWITCH, KEYBOARD (▶▶, (AMS +))			

DISPLAY | HEADPHONE | JUNCTION | KEY (A) | KEY (B)

LOADING MOTOR | MAIN

Ref. No.	Part No.	Description			Remark
S846	1-771-349-21	SWITCH, KEYBOARD (≙ OPEN/COLSE)			

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Ref. No.	Part No.	Description			Remark
	1-681-136-11	HEADPHONE BOARD (US, CND)			
	1-681-136-21	HEADPHONE BOARD (AEP)			
		*****************			
		< CAPACITOR >			
C881	1-162-294-31	CERAMIC	0.001uF	10%	50V
C882	1-162-294-31	CERAMIC	0.001uF	10%	50V
C883	1-164-159-11	CERAMIC	0.1uF		50V
		< JACK >			
J881	1-770-307-11	JACK (LARGE TYPE) (PHONES)			
		< RESISTOR >			
R881	1-249-401-11	CARBON	47	5%	1/4W
R882	1-249-401-11	CARBON	47	5%	1/4W

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Ref. No.	Part No.	Description			Remark
	1-676-246-11	JUNCTION BOARD			
		***************			
		< CAPACITOR >			
C10	1-124-589-11	ELECT	47uF	20%	16V
C11	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
CN11	1-573-911-11	PIN, CONNECTOR 13P			
CN13	1-506-481-11	PIN, CONNECTOR 2P			
* CN14	1-568-941-11	PIN, CONNECTOR 3P			
CN15	1-784-767-11	CONNECTOR, FFC 6P			
		< IC >			
IC11	8-759-356-03	IC BA6780			
		< RESISTOR >			
R21	1-249-429-11	CARBON	10K	5%	1/4W
R22	1-249-426-11	CARBON	5.6K	5%	1/4W
R23	1-249-425-11	CARBON	4.7K	5%	1/4W
R24	1-249-430-11	CARBON	12K	5%	1/4W
R25	1-249-382-11	CARBON	1.2	5%	1/6W
R26	1-249-382-11	CARBON	1.2	5%	1/6W
		< SWITCH >			
S11	1-771-836-11	SWITCH, LEVER (SLIDE) (OPEN/CLOSE DETECT)			

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Ref. No.	Part No.	Description			Remark
	1-681-134-11	KEY (A) BOARD (US, CND)			
	1-681-134-21	KEY (A) BOARD (AEP)			
		*************			
		< CONNECTOR >			
CNP811	1-750-194-11	CONNECTOR, BOARD TO BOARD 4P			
		< RESISTOR >			
R825	1-247-843-11	CARBON	3.3K	5%	1/4W
R826	1-249-427-11	CARBON	6.8K	5%	1/4W
R831	1-249-415-11	CARBON	680	5%	1/4W
R832	1-249-417-11	CARBON	1K	5%	1/4W
R833	1-249-419-11	CARBON	1.5K	5%	1/4W
R834	1-249-421-11	CARBON	2.2K	5%	1/4W
R835	1-247-843-11	CARBON	3.3K	5%	1/4W
R836	1-249-427-11	CARBON	6.8K	5%	1/4W
R837	1-249-431-11	CARBON	15K	5%	1/4W
		< SWITCH >			
S826	1-771-349-21	SWITCH, KEYBOARD (TIME/TEXT)			
S827	1-771-349-21	SWITCH, KEYBOARD (REPEAT)			
S831	1-771-349-21	SWITCH, KEYBOARD (DISC 5)			
S832	1-771-349-21	SWITCH, KEYBOARD (DISC 4)			
S833	1-771-349-21	SWITCH, KEYBOARD (DISC 3)			
S834	1-771-349-21	SWITCH, KEYBOARD (DISC 2)			
S835	1-771-349-21	SWITCH, KEYBOARD (DISC 1)			
S836	1-771-349-21	SWITCH, KEYBOARD (CONTINUE)			
S837	1-771-349-21	SWITCH, KEYBOARD (SHUFFLE)			
S838	1-771-349-21	SWITCH, KEYBOARD (PROGRAM)			

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Ref. No.	Part No.	Description			Remark
	1-681-137-11	KEY (B) BOARD (US, CND)			
	1-681-137-21	KEY (B) BOARD (AEP)			
		*************			
		< RESISTOR >			
R841	1-249-415-11	CARBON	680	5%	1/4W
R842	1-249-417-11	CARBON	1K	5%	1/4W
R843	1-249-419-11	CARBON	1.5K	5%	1/4W
R844	1-249-421-11	CARBON	2.2K	5%	1/4W
R845	1-247-843-11	CARBON	3.3K	5%	1/4W
		< SWITCH >			
S841	1-771-349-21	SWITCH, KEYBOARD (FADER)			
S842	1-771-349-21	SWITCH, KEYBOARD (PEAK SEARCH)			
S843	1-771-349-21	SWITCH, KEYBOARD (CLEAR)			
S844	1-771-349-21	SWITCH, KEYBOARD (CHECK)			
S845	1-771-349-21	SWITCH, KEYBOARD (EDIT)			

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Ref. No.	Part No.	Description			Remark
	1-676-244-11	LOADING MOTOR BOARD			
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Ref. No.	Part No.	Description			Remark
	A-4725-582-A	MAIN BOARD, COMPLETE (US, CND)			
	A-4725-593-A	MAIN BOARD, COMPLETE (AEP)			
		********************			
	7-685-871-01	SCREW +BVTT 3X6 (S)			
		< CAPACITOR >			
C301	1-164-159-11	CERAMIC	0.1uF		50V
C302	1-104-665-11	ELECT	100uF	20%	10V
C303	1-161-494-00	CERAMIC	0.022uF		25V
C304	1-161-494-00	CERAMIC	0.022uF		25V
C305	1-110-489-11	DOUBLE LAYER	1F		5.5V
C325	1-161-494-00	CERAMIC	0.022uF		25V
C326	1-104-665-11	ELECT	100uF	20%	10V
C350	1-126-962-11	ELECT	3.3uF	20%	50V
C351	1-126-963-11	ELECT	4.7uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C381	1-164-159-11	CERAMIC	0.1uF		50V
C382	1-164-159-11	CERAMIC	0.1uF		50V
C404	1-126-965-11	ELECT	22uF	20%	50V
C405	1-104-664-11	ELECT	47uF	20%	10V
C406	1-126-933-11	ELECT	100uF	20%	16V
C407	1-162-290-31	CERAMIC	470PF	10%	50V
C408	1-107-715-11	ELECT	22uF	20%	25V
C451	1-126-933-11	ELECT	100uF	20%	16V
C504	1-126-965-11	ELECT	22uF	20%	50V
C505	1-104-664-11	ELECT	47uF	20%	10V
C506	1-126-933-11	ELECT	100uF	20%	16V
C507	1-162-290-31	CERAMIC	470PF	10%	50V
C508	1-107-715-11	ELECT	22uF	20%	25V
C551	1-126-933-11	ELECT	100uF	20%	16V
C602	1-126-937-11	ELECT	4700uF	20%	16V
C603	1-126-767-11	ELECT	1000uF	20%	16V
C604	1-104-664-11	ELECT	47uF	20%	10V
C607	1-126-935-11	ELECT	470uF	20%	6.3V
C608	1-126-934-11	ELECT	220uF	20%	10V
C609	1-128-552-51	ELECT	47uF	20%	63V
C610	1-126-964-11	ELECT	10uF	20%	50V
C611	1-126-767-11	ELECT	1000uF	20%	16V
C613	1-126-935-11	ELECT	470uF	20%	6.3V
C616	1-161-494-00	CERAMIC	0.022uF		25V
C619	1-104-665-11	ELECT	100uF	20%	10V
⚠C620	1-113-924-11	CERAMIC	0.0047uF	20%	250V
C810	1-161-494-00	CERAMIC	0.022uF		25V
C820	1-161-494-00	CERAMIC	0.022uF		25V
C830	1-161-494-00	CERAMIC	0.022uF		25V
C840	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
CN301	1-568-838-11	CONNECTOR, FFC 21P			
CN311	1-573-911-11	PIN, CONNECTOR 13P			
CN351	1-506-468-11	PIN, CONNECTOR 3P			
CN603	1-792-131-11	LEAD (WITH CONNECTOR)			
CN801	1-784-776-11	CONNECTOR, FFC 15P			
		< DIODE >			
D301	8-719-911-19	DIODE 1SS133T-72			
D352	8-719-911-19	DIODE 1SS133T-72			
D353	8-719-911-19	DIODE 1SS133T-72			
D381	8-719-911-19	DIODE 1SS133T-72			
D601	8-719-024-99	DIODE 11ES2-NTA2B			
D602	8-719-024-99	DIODE 11ES2-NTA2B			
D603	8-719-024-99	DIODE 11ES2-NTA2B			
D604	8-719-024-99	DIODE 11ES2-NTA2B			
D605	8-719-024-99	DIODE 11ES2-NTA2B			
D606	8-719-911-19	DIODE 1SS133T-72			
D607	8-719-911-19	DIODE 1SS133T-72			
D608	8-719-109-85	DIODE MTZJ-T-72-5.1B			
D610	8-719-983-99	DIODE MTZJ-T-72-39D			
D612	8-719-110-08	DIODE MTZJ-T-72-8.2B			
		< GROUND TERMINAL >			
EB601	1-537-770-21	TERMINAL BOARD, GROUND			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		< IC >			
IC301	8-752-919-06	IC CXP84648-085Q			
IC302	8-759-825-10	IC BS62LV256SC-70 (T)			
IC303	8-749-921-12	IC GP1F32T (DIGITAL OUT OPTICAL)			
IC351	8-759-167-88	IC NJM4565D			
IC402	8-749-015-59	IC BA4558-HT			
IC502	8-749-015-59	IC BA4558-HT			
IC601	8-759-039-69	IC uPC7805AHF			
IC602	8-749-011-78	IC BA17807T			
IC603	8-759-165-82	IC PST600E-T			
		< JACK >			
J301	1-784-429-11	JACK, PIN 4P (ANALOG OUT, 2ND CD IN)			
J381	1-779-655-21	JACK (SMALL TYPE) (2 GANG) (CONTROL A1 II)			
		< COIL >			
L381	1-410-503-11	INDUCTOR	3.3uH		
L602	1-414-151-21	INDUCTOR	470uH		
		< TRANSISTOR >			
Q307	8-729-029-56	TRANSISTOR	DTA144ESA-TP		
Q311	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
Q352	8-729-029-56	TRANSISTOR	DTA144ESA-TP		
Q353	8-729-029-56	TRANSISTOR	DTA144ESA-TP		
Q354	8-729-029-56	TRANSISTOR	DTA144ESA-TP		
Q355	8-729-029-56	TRANSISTOR	DTA144ESA-TP		
Q356	8-729-029-56	TRANSISTOR	DTA144ESA-TP		
Q381	8-729-119-78	TRANSISTOR	2SC1740S-QRT		
Q402	8-729-141-26	TRANSISTOR	2SC3622ATP-LK		
Q403	8-729-141-26	TRANSISTOR	2SC3622ATP-LK		
Q404	8-729-141-26	TRANSISTOR	2SC3622ATP-LK		
Q502	8-729-141-26	TRANSISTOR	2SC3622ATP-LK		
Q503	8-729-141-26	TRANSISTOR	2SC3622ATP-LK		
Q504	8-729-141-26	TRANSISTOR	2SC3622ATP-LK		
Q601	8-729-140-97	TRANSISTOR	2SB734-T-34		
		< RESISTOR >			
R300	1-249-427-11	CARBON	6.8K	5%	1/4W
R301	1-249-415-11	CARBON	680	5%	1/4W
R302	1-249-417-11	CARBON	1K	5%	1/4W
R303	1-249-429-11	CARBON	10K	5%	1/4W
R306	1-249-429-11	CARBON	10K	5%	1/4W
R307	1-249-429-11	CARBON	10K	5%	1/4W
R308	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-429-11	CARBON	10K	5%	1/4W
R310	1-249-429-11	CARBON	10K	5%	1/4W
R311	1-249-429-11	CARBON	10K	5%	1/4W
R312	1-249-429-11	CARBON	10K	5%	1/4W
R314	1-247-807-31	CARBON	100	5%	1/4W
R315	1-247-807-31	CARBON	100	5%	1/4W
R316	1-249-429-11	CARBON	10K	5%	1/4W
R317	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-249-399-11	CARBON	33	5%	1/4W
R324	1-249-429-11	CARBON	10K	5%	1/4W
R325	1-247-807-31	CARBON	100	5%	1/4W
R326	1-249-425-11	CARBON	4.7K	5%	1/4W
R327	1-249-425-11	CARBON	4.7K	5%	1/4W

MAIN | POWER SW | SENSOR

Ref. No.	Part No.	Description			Remark
R329	1-249-425-11	CARBON	4.7K	5%	1/4W
R350	1-247-807-31	CARBON	100	5%	1/4W
R351	1-247-807-31	CARBON	100	5%	1/4W
R352	1-249-441-11	CARBON	100K	5%	1/4W
R353	1-249-441-11	CARBON	100K	5%	1/4W
R354	1-249-441-11	CARBON	100K	5%	1/4W
R355	1-249-441-11	CARBON	100K	5%	1/4W
R356	1-249-441-11	CARBON	100K	5%	1/4W
R381	1-249-425-11	CARBON	4.7K	5%	1/4W
R382	1-249-429-11	CARBON	10K	5%	1/4W
R383	1-249-393-11	CARBON	10	5%	1/4W
R406	1-247-895-00	CARBON	470K	5%	1/4W
R407	1-249-425-11	CARBON	4.7K	5%	1/4W
R409	1-249-419-11	CARBON	1.5K	5%	1/4W
R410	1-249-429-11	CARBON	10K	5%	1/4W
R411	1-249-429-11	CARBON	10K	5%	1/4W
R412	1-249-429-11	CARBON	10K	5%	1/4W
R413	1-247-887-00	CARBON	220K	5%	1/4W
R414	1-249-409-11	CARBON	220	5%	1/4W
R415	1-249-409-11	CARBON	220	5%	1/4W
R417	1-249-427-11	CARBON	6.8K	5%	1/4W
R418	1-249-421-11	CARBON	2.2K	5%	1/4W
R419	1-249-421-11	CARBON	2.2K	5%	1/4W
R420	1-249-409-11	CARBON	220	5%	1/4W
R421	1-247-895-00	CARBON	470K	5%	1/4W
R422	1-249-421-11	CARBON	2.2K	5%	1/4W
R451	1-247-843-11	CARBON	3.3K	5%	1/4W
R452	1-249-429-11	CARBON	10K	5%	1/4W
R506	1-247-895-00	CARBON	470K	5%	1/4W
R507	1-249-425-11	CARBON	4.7K	5%	1/4W
R509	1-249-419-11	CARBON	1.5K	5%	1/4W
R510	1-249-429-11	CARBON	10K	5%	1/4W
R511	1-249-429-11	CARBON	10K	5%	1/4W
R512	1-249-429-11	CARBON	10K	5%	1/4W
R513	1-247-887-00	CARBON	220K	5%	1/4W
R514	1-249-409-11	CARBON	220	5%	1/4W
R515	1-249-409-11	CARBON	220	5%	1/4W
R517	1-249-427-11	CARBON	6.8K	5%	1/4W
R518	1-249-421-11	CARBON	2.2K	5%	1/4W
R519	1-249-421-11	CARBON	2.2K	5%	1/4W
R520	1-249-409-11	CARBON	220	5%	1/4W
R521	1-247-895-00	CARBON	470K	5%	1/4W
R522	1-249-421-11	CARBON	2.2K	5%	1/4W
R551	1-247-843-11	CARBON	3.3K	5%	1/4W
R552	1-249-429-11	CARBON	10K	5%	1/4W
R601	1-249-425-11	CARBON	4.7K	5%	1/4W
R602	1-249-411-11	CARBON	330	5%	1/4W
R611	1-247-843-11	CARBON	3.3K	5%	1/4W
R612	1-247-843-11	CARBON	3.3K	5%	1/4W
R613	1-247-807-31	CARBON	100	5%	1/4W
R616	1-249-429-11	CARBON	10K	5%	1/4W
R810	1-249-427-11	CARBON	6.8K	5%	1/4W
R820	1-249-427-11	CARBON	6.8K	5%	1/4W
R830	1-249-427-11	CARBON	6.8K	5%	1/4W
R840	1-249-427-11	CARBON	6.8K	5%	1/4W

Ref. No.	Part No.	Description			Remark
		< POWER TRANSFORMER >			
⚠T601	1-435-342-11	TRANSFORMER, POWER (US, CND)			
⚠T601	1-435-343-11	TRANSFORMER, POWER (AEP)			
		< VIBRATOR >			
X301	1-579-175-11	VIBRATOR, CERAMIC (10MHz)			

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Ref. No.	Part No.	Description			Remark
	1-681-135-11	POWER SW BOARD (US, CND)			
	1-681-135-21	POWER SW BOARD (AEP)			
		****************			
		< CAPACITOR >			
⚠C601	1-113-924-11	CERAMIC	0.0047uF	20%	250V
		< CONNECTOR >			
* CN601	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P			
* CN602	1-568-226-11	PIN, CONNECTOR 2P			
		< SWITCH >			
⚠S601	1-762-581-11	SWITCH, AC POWER PUSH (1 KEY) (POWER)			

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Ref. No.	Part No.	Description			Remark
	1-676-245-11	SENSOR BOARD			
		*************			
		< CONNECTOR >			
CN10	1-750-243-11	SOCKET, CONNECTOR 6P			
		< PHOTO INTERRUPTER >			
D10	8-749-924-18	PHOTO INTERRUPTER RPI-1391			
D11	8-749-017-45	SENSOR, PHOTO RPR-220C1N			
		< RESISTOR >			
R10	1-249-416-11	CARBON	820	5%	1/4W
R11	1-249-407-11	CARBON	150	5%	1/4W
R12	1-249-429-11	CARBON	10K	5%	1/4W

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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**************	
61	1-757-649-11	WIRE (FLAT TYPE) (15 CORE)	
105	1-757-648-11	WIRE (FLAT TYPE) (21 CORE)	
⚠110	1-575-651-21	CORD, POWER (AEP)	
⚠110	1-783-531-31	CORD, POWER (US, CND)	
512	A-4672-867-A	MOTOR ASSY, ROTARY (TRAY)	
568	1-471-061-11	MAGNET ASSY	
571	1-791-930-11	WIRE (FLAT TYPE) (6 CORE)	
573	A-4672-879-A	MOTOR ASSY, LOADING	
⚠605	1-796-033-11	OPTICAL PICK-UP (PXR-104X)	
606	1-782-817-11	WIRE (FLAT TYPE) (16 CORE)	
M10	1-541-632-12	MOTOR, DC (LOADING)	
M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M11	1-541-632-12	MOTOR, DC (TRAY)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
S200	1-418-746-11	ENCODER, ROTARY (BU, TABLE ADDRESS DETECT)	
⚠T601	1-435-342-11	TRANSFORMER, POWER (US, CND)	
⚠T601	1-435-343-11	TRANSFORMER, POWER (AEP)	

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ACCESSORIES & PACKING MATERIALS
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	1-418-858-11	REMOTE COMMANDER (RM-DC545)	
	1-558-271-11	CORD, CONNECTION (RCA PIN PLUG)	
	1-777-241-11	CORD, CONNECTION (MINI PLUG) (CND)	
	4-233-301-11	MANUAL, INSTRUCTION (ENGLISH) (US)	
	4-233-301-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH) (CND)	
	4-233-301-31	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH, DUTCH, SWEDISH, ITALIAN , PORTUGUESE) (AEP)	
	4-981-643-01	COVER, BATTERY (for RM-DC545)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.1	2001.07	Addition of electrical adjustments
1.0	2001.03	New